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ABSTRACT

This monograph is divided into two parts. Part 1 is meant to serve as a conceptual guide for those facilitating or conducting life-cycle program-management workshops focused on any of the life-cycle stages of: (1) problem finding; (2) program design; (3) program development; (4) program implementation; (5) program maintenance and improvement; and (6) program redirection. Because the framework will be amended and emended from experiences gained in the workshops and later results, the approach is termed "heuristic." A Life Cycle Guidance Team should be formed to sustain the plausibility of the program through its stages. For these purposes, a program is a theory that relates a set of organized activities and resources to intended results. Life-cycle program management and evaluation is applicable to many situations, but in this monograph it is directed toward educational operations of the Cooperative Extension System, with its many years of experience in providing educational programs. Each aspect of the life cycle is examined in some detail. Forty-one figures and 62 tables illustrate the discussion. Four appendixes give more detail on workshop conduct, the outline of a case report, and definitions used in life-cycle program management. Part 2 of the guide focuses on: (1) initiating the program and monitoring implementation; (2) maintaining and improving the program; (3) redirecting the program; (4) managing special topics in the life-cycle program; (5) evaluating the life cycle program; (6) conducting in-depth evaluation studies; and (7) sharing and using the results of evaluations. Twenty tables and 13 figures illustrate the discussion. Four appendixes provide details about conducting workshops and a glossary. (Contains 187 references.) (SLD)

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PROGRAM AND STAFF DEVELOPMENT

LIFE CYCLE PROGRAM MANAGEMENT & EVALUATION:
AN HEURISTIC APPROACH

Parts I and II

PREPARED FOR USE BY THE

COOPERATIVE EXTENSION SYSTEM

PLANNING, DEVELOPMENT AND EVALUATION STAFF
EXTENSION SERVICE
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LIFE CYCLE PROGRAM MANAGEMENT & EVALUATION:

AN HEURISTIC APPROACH

by

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Planning, Development and Evaluation

April , 1994

Part I
of 2

Extension Service
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The views expressed herein are those of the author and do not necessarily reflect the official views or policies of the U.S. Department of Agriculture.

Foreword

Although written by a professional evaluator, this monograph is not about evaluation. It is about delivering better programs - programs that are not only more plausible but more impactful and robust as well. It is based on many years of experience in attempting to evaluate educational programs, especially one's that are non-formal and involve learning-by-doing or, what is often called experiential learning. The Cooperative Extension System is especially prominent and perhaps the foremost organization in the world. in providing such programs.

This monograph is meant to serve as a conceptual guide for those facilitating or conducting life-cycle program management workshops focused on any of the life-cycle stages of: problem finding; program design; program development; program implementation; program maintenance and improvement; and, program redirection. It is hoped that these chapters will provide a beginning framework which will be amended and emended from the experiences gained in the workshops as well as from their later results - hence the approach is called **"heuristic"**.

It is anticipated that such workshops will focus on topics that involve a multiplicity of actors for whom a concerted, coordinated effort is required or desired. Topics that cut across organizational, disciplinary &/or geographic boundaries and require some special effort are especially suited to such an approach. There is a heavy reliance on the use of visual materials since graphic presentations seem to readily facilitate "working in groups" while reliance on printed matter can be an impediment.

Although this monograph is not intended to foster an employment program for professional evaluators they are particularly well suited to serve as the facilitators of life-cycle workshops. They combine a happy blend of research skills with a practical, user oriented approach reinforced by a high degree of interpersonal skill. In short, they are the natural heirs to such an approach (albeit not the only heirs). Perhaps they will even pursue a set of standards for programs similar to those developed for evaluations some years ago (Stufflebeam, 1981). Certainly, Mueller (1991) and Smith (1991) have taken major steps in that direction, at least for Extension programs.

The names of my colleagues to whom I am indebted for their help in these efforts is myriad in number and geographic locale, ranging from Maine to the Marianas Islands. In my work I have found them to be a walking "treasure trove" of "know-how" and "can-do-ism's". All would be richer by far if much of that experience-based ingenuity could be systematized and documented. It is hoped that this monograph takes a small step in that direction. Special notes of thanks are due to: John S. Bottum, Deputy Administrator for Planning, Development and Evaluation for his continuing support of this work; "Midge" Smith for her pioneering work in adapting Evaluability Assessment (EA) techniques to Extension programming; to Joe Wholey for starting EA in the first place (and who may be scratching his head in wonderment as to how it could have come to this); to a network of colleagues who helped me carry out a "whole bunch" of EA's while along the way adapting these techniques to design future programs rather than attempting to "resurrect" old ones (Charles Clark, Debbie Killam, Michael Lambur, John Michael, Marjorie Mortvedt, Maria Russell, Satish Verma and Randall Workman) and to my colleague Leon Hunter for getting me started with a graphics package - it has "made my day" many times over. I am especially indebted to the Louisiana 4-H Youth Development Design Team for orienting my thinking about local agents as coordinators of program delivery teams and to the North Carolina A&T Adolescent Pregnancy and Parenting Team for allowing me to work with them as they carried their design into the developmental phase - an effort from which I continue to learn much. The continuing work of Mike Lambur and Judy Burtner on devising means to identify programs for elimination will be especially instructive for all, as it nears fruition. I touched on some of their work in Chapter 13 for it is both excellent and begins to fill a void in our collective knowledge base about ending programs. Finally a special note of thanks needs to be given to my Secretary Rosa L. Monroe who has labored for years over many incarnations of this work (of which this latest will likely also be its last). At times she was ably assisted by Mia Johnson.

The illustrative program used as an example of a design which is then carried into development and implementation, is actually based on a synthesis of most of the program design and evaluability assessment work done in Extension to date. It is believed to have wide applicability for Extension programming. There is a great deal of developmental work that needs to be done yet for the different life-cycle workshops. Most is known by far, about procedures for the program design workshops, as is reflected in the amount of space devoted to the topic. Hopefully, similar experiences will accrue for the other cycles.

Finally, a note is in order about the Life Cycle Guidance Team. This theoretical construct is introduced as a means of providing some continuity to the various cycles. However, it need not be just theoretical. It can be made operational in ways that reflect a commitment to staff participation and empowerment in the management process.

As a user of this monograph you are charged with the responsibility of sharing your experiences with a network of others so involved.

¡Que les vaya bien!

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Foreword to the Second Edition

This edition is more complete than its predecessor. However, it should still be regarded as in a stage of "evolving" into something more complete. Some additional topics have been added in Chapter 14 (stage/process models, a theory of performance incidents, selected aspects of a theory of learning), more details have been given on our recent experiences with program redirection in Chapter 13 (about which more will be forthcoming in future months) and, chapters have been added on Life Cycle Program Evaluation, In-Depth Evaluations and on Sharing & Using Evaluation Results (hence the slight title change). The volume has been split into two parts only for purposes of facilitating reproduction.

I attempted to design into this approach called Life Cycle Program Management "solutions" to problems that evaluators often find vexing: causation - by laying down a plausible causal chain of events; utilization - by having the management teams (Life Cycle & Transition) use program performance information, including evaluative information in their deliberations whether it be for program design, development, oversight or redirection; stakeholder involvement - by maintaining stakeholder involvement throughout the Life Cycle process; staff involvement - by maintaining staff involvement in the design, development, oversight and redirection through such mechanisms as the Life Cycle Guidance Team and the Transition Management Team ; and, program improvement - by building a program improvement module into the program maintenance stage.I was quite surprised to find out what was left for the evaluator to do. Perhaps you - the reader - will be surprised too!

According to the Government Performance and Results Act (GPRA) of 1993, by the year 2000 the Federal Government will be allocating funds based on numerical measures of program accomplishments. The accomplishments will be specified in advance and the numbers submitted to indicate accomplishments will be verified prior to submission and will be subject to external audit. Such an approach will profoundly change the way government business is conducted. As one evaluator who is familiar wiith this approach noted, Extension will have to be much more focused in its efforts in the future than it has been in the past (Ladewig, 1994). Hopefully the techniques described herein will help to achieve greater focus, especially for high priority programs. However, while the GPRA does provide a framework for performance accomplishments it does ***not*** provide guidance as to how to realize such accomplishments. The latter is what this monograph is all about - at least for non-formal experiential educational programs.

Thanks are again due to all those mentioned earlier plus to Tom Poore for help with the graphics and to Don West for being such a good "archivist".

¡Ojala que les guste!

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CONTENTS

Foreword to the First & Second Editions

1. Introduction to Life-Cycle Program Management

2. Futuristic Perspectives for the Organization

3. Problem Finding

4. Designing a Program for the Problem: An Overview

5. The Program Logic Model and It's Components

6. Incorporating Relevant Documents into The Process

7. Identifying Stakeholders and Determining their Viewpoints

8. Developing Conclusions, Recommendations and Suggesting Next Steps

9. An Illustrative Model for Extension Programming

10. Developing the Program

11. Initiating the Program and Monitoring Implementation

12. Maintaining and Improving the Program

13. Redirecting the Program

14. Special Topics in Life Cycle Program Management

15. Life Cycle Program Evaluation

16. Conducting In-Depth Evaluation Studies

17. Sharing & Using the Results of Evaluations

18. References

19. Appendices
    A. Workshop Formats and Materials for the Program Design Facilitator(s)
    B. Frequent Questions and Answers
    C. Outline of A Case Report
    D. Definitions of Terms and Concepts

Chapter 1. Introduction to Life Cycle Program Management & Evaluation

The topic of this monograph is **Life Cycle Program Management & Evaluation**. The Life Cycle term is borrowed from the extensive literature on project management (Cleland & King,1988; Kerzner,1989; 1984) where it is used to indicate the distinctly different stages that are experienced in the course of carrying out a project (e.g. the development of a product or the construction of a facility). This concept is proving useful as a framework for thinking about programs* as well, especially experiential educational programs (viz. nonformal educational programs that emphasize learning by doing).

1.1 The Life Cycle for Educational Programs

Figure 1.1 portrays the cycle that has been developed in working with experiential educational programs that are carried out by the Cooperative Extension System (an organization about which more will be said later). The milieu in which this cycle occurs as well as the nature of the different stages are:

- **Futuristic Perspectives for the Organization**

Organizations usually sponsor a number of different programs. Consequently, the organization's view of where it is going in the future and how it will be successful form an important part of the climate in which programs are initiated and carried out. For this reason these concerns are portrayed as a background condition for all life cycle management. More will be said later about how futuristic perspectives can be obtained and how they might "optimize" the life cycle management process.

- **Problem Finding**

Problems may appear suddenly or emerge over a longer period of time. Efforts to ameliorate them may be imposed on an organization by forces external to it or may be initiated by the organization itself, perhaps as part of its routine functioning. Problem amelioration provides the impetus for programs. The effort devoted to problem amelioration by an organization will depend upon its mission and the importance of the problem relative to others the organization has to deal with.

- **Program Design**

The design of a program may be thought of as the development of a "blueprint" or "map" that lays out the structure of a proposed program describing what will be done, when, by whom and for whom, with a particular range of resources. It is in a sense, a theoretical

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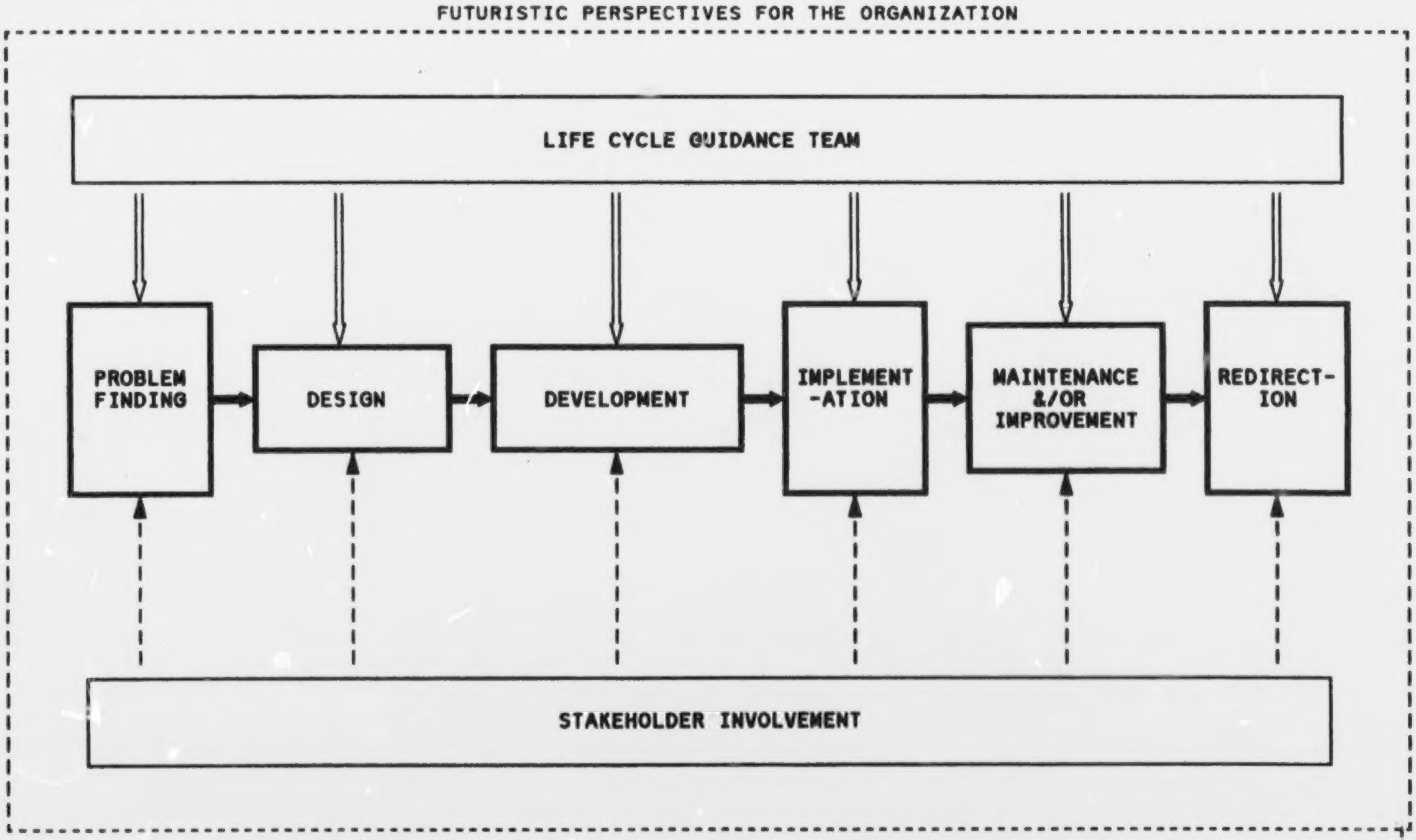
*We have chosen to use the term "program" in lieu of "project" because many public sector agencies have programs which sponsor or fund projects. However, many of the concepts and principles are applicable for both programs and projects. Indeed, a project can be thought of as a particular type of program (see Chapter 14). For a related approach see Pancer & Westhues (1989).

Figure 1.1 Stages in a Program's Life Cycle


FUTURISTIC PERSPECTIVES FOR THE ORGANIZATION
LIFE CYCLE GUIDANCE TEAM
PROBLEM FINDING
DESIGN
DEVELOPMENT
IMPLEMENT-ATION
MAINTENANCE &/OR IMPROVEMENT
REDIRECT-ION
STAKEHOLDER INVOLVEMENT

framework through which the proposed effects and consequences of a program are related to its development and implementation. If the necessary administrative **and** resource commitments are made, then the next stage is undertaken.

o Program Development

In this stage all of the developmental work necessary to carry out the proposed program is done. Major questions that have to be resolved in this phase deal with: what the nature of the educational experiences and materials will be, including their development; through what means and by whom they will be provided; what staff and staff training will be required; what other organizations will be involved and how; and, how the program will be promoted and program performance information obtained. Once these developmental activities have been completed and support has been obtained, the next phase becomes:

o Program Implementation

In this phase the "blueprint" with its supporting materials is "put in motion". Monitoring of the program as it is implemented is conducted in this stage in order to identify and resolve problems that may arise and to report on the accomplishment of implementation milestones.

o Program Maintenance and Improvement

Through a system of performance monitoring, information about the maintenance or "steady state" of the program is obtained. If program maintenance is the stage desired, then evaluative information about results or impacts can be obtained (if sufficient time has elapsed for them to occur). If program improvement is desired, then evaluative information about how this might be done can be obtained. Practices that are judged to be exemplary in some way (e.g. unusually effective, efficient or innovative) can usually be identified from the ongoing program or from some other sources(e.g. related programs, research, etc.). They can then be introduced into the ongoing program. Finally, programs can be thought of as reaching a stage where they will be redirected in some manner.

o Program Redirection

Concerns in this phase deal with whether the program should be continued or phased-out. If it is to be phased-out, then the when, by whom, over what time period needs to be specified. If it is to be continued, then the form of continuation needs to be specified: redesign so as to do more of the same, perhaps with the addition or deletion of some functions; consolidate with other programs; or, transfer to the sponsorship of some other organization or group; etc. Concerns over program endings have received scant attention to date.

1.2 Life Cycle Management as a Dynamic Process

The notion of a program life cycle that encompasses different stages of development emphasizes the dynamic nature of the program management process. Programs are not just static entities that once put in place can be forgotten to let run indefinitely on their own. Rather, they have to be nurtured on a regular basis in order to be brought to a desired level of performance and stage of maturity.

Before going on to define what is meant by a program and program planning let us examine a process by which this nurturing can take place.

1.3 Life Cycle Management Through Team Guidance and Stakeholder Involvement

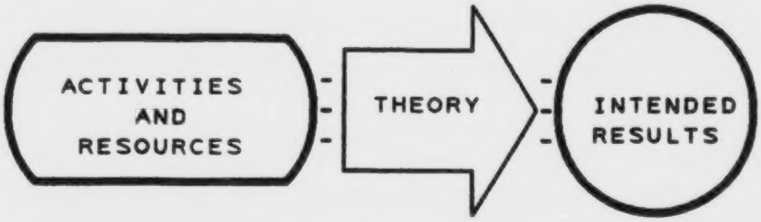
In the life cycle process, programs that are identified are those that will involve the collective efforts of a number of persons. An explicit plan is developed in order to serve as a form of guidance for them in carrying out their specialized roles. For this effort a **Life Cycle Guidance Team** is formed. Its composition may vary depending upon the stage the program is in. In Figure 1.1, the role of the Life Cycle Guidance Team is portrayed as continuing throughout the cycle. An additional form of guidance is obtained from **stakeholders**. The definition of a stakeholder will vary depending on it's use. Generally, stakeholders are defined as anyone who can affect or be affected by what an organization does (Bryson,1988; Benveniste,1989). As applied to the Life Cycle Process, a stakeholder is defined as a person (or group) who has a special interest in or influence over a programmatic or topical area **and** who can provide useful information to the Life Cycle Guidance Team about the topic, program, stage that the program is in, or about the entire life cycle of a program. Their involvement in the life cycle process is a continuing one, as depicted in Figure 1.1. However, the nature and extent of their involvement will vary with the stage that the program is in, as we shall see in later chapters.

Throughout all stages, the **central task** of the Life Cycle Guidance Team is **to sustain the plausibility of the program**. Plausibility is defined by Smith (1989a) as "a judgment about the extent to which necessary and sufficient conditions exist for a program to succeed".

1.4 What is a Program?

A **program is a theory which relates a set of organized activities and resources to intended results**. Figure 1.2 portrays the nature of this relationship. It is a system of beliefs or hypotheses derived from research, past experience and expert judgment. As the program matures through its stages this theory takes on an appearance of "reality". By this is meant that as one begins to see results emerge they are less inclined to regard the program as a set of hypotheses and are more inclined to think of it as being an "actual" set of relationships. Such observations notwithstanding, it seems advisable to always regard a program as a system of beliefs or hypotheses since uncertainties* always exist and a degree of uncertainty is more likely to keep our attention focused on it (things can go wrong!). This definition is also a working definition which will be reformulated for greater specificity in subsequent chapters.

Figure 1.2 Portrayal of Program as a Theory Linking Resources & Activities With Intended Results



The skeptical reader might ask whether all this effort devoted to planning and management is worthwhile. Doesn't it after all, take valuable time and resources away from serving clientele? Also, doesn't this kind of a management process (viz. use of an explicit plan) stifle individual initiative and resourcefulness?

The answer to the first question is that one must be aware of the nature of the circumstances in which they are operating. If the conditions are in such a state of flux that tomorrow and the day after may be very different from one another, then it makes little sense to plan as if they were going to be the same. However, this does not mean that one cannot plan for their being different (Sadowske,1991). In short, "failing to plan may be planning to fail". There are however, circumstances which demand immediate action and require little or no coordinated activities by different individuals. In such circumstances the time devoted to the development of a plan could divert energies from where they are critically needed.

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*We are reminded that most hypotheses are probabilistic rather than deterministic in nature.

For the second question one must recognize that no plan can be a substitute for individual initiative and resourcefulness. Every plan should be a guide to thought and action and not a substitute for thought and action. If a plan becomes an impediment then it defeats its purpose and should be discarded.

1.5 What is the Cooperative Extension System?

The motivation for this monograph as well as many of the examples grew out of work done in the Cooperative Extension System. Hence, it will be helpful in understanding what follows to examine the nature of this organization.

The Cooperative Extension System is a partnership of Federal, State and county governments. It is administered by the U.S. Department of Agriculture and the land-grant universities. Its purpose is to provide educational programs oriented to the needs of local citizenry which are based upon the results of research. The topical areas dealt with are diverse ranging from: enhancing the viability of American Agriculture; wise management of our natural resources; improving the nutrition, diet and health of our people; helping families cope with changing economic and social circumstances; helping youth become productive and contributing members of society; and, helping to infuse a new vitality into the economic and social life of rural America.

Most of the 16,000 professional staff of the Cooperative Extension System work at the county level throughout the States and territories. In a given year, these employees work with nearly three million volunteers and in so doing reach forty-eight million others--be they men, women, youth or ethnic minorities located in rural or urban settings. The extent of services may vary from a brief three minute phone call from a home owner concerning a horticultural or nutritional question --to working with a farmer for some years on a demonstration agricultural project --to working with the youth of a volunteer led 4-H club for several years.

The funds to foster such a system come from each of the three partners. Programs are usually planned at the local level for and with people of that locale with guidance from the other partners. Subject-matter specialists from the land-grant campus assist county staff in devising and delivering programs oriented to local needs based upon the most current knowledge available. When necessary these specialists or their colleagues will perform research needed to better serve these local needs. The States provide counties with a framework within which they can plan their programs and report on their accomplishments. The Federal partner performs a similar function for the States. County staff are accountable to both county and State administration while State staff are accountable to both State and Federal administration.

The Cooperative Extension System is guided by a committee comprised of Administrators from the State and Federal level. It is called the Extension Committee on Organization and Policy (ECOP, for short) and is convened periodically in each year to deal with systemwide issues, problems and policies and to deliberate as to the roles the different partners should play in such matters. This committee with its various substantively oriented subcommittees (e.g. legislation, budget, personnel, other topical areas) forms the governance structure for the Cooperative Extension System. Cooperative Extension as a nationwide system may be thought of as a widely dispersed, loosely coupled organization with multiple authority structures (Benveniste,1989; Brazzel and Sanderson, 1990; Louis & Sieber, 1970; Weick,1976). The more than 75 year history of this system has been described recently (Rasmussen,1989; Mayberry,1989) and an examination made of its functions as a system (Mayeske, 1990; Bennett, 1992, 1990).Its' public familiarity has been studied (Warner & Christenson, 1984) and the history of its' most famous program - 4-H - has been described (Wessel & Wessel, 1982).

Extension can also be characterized as a matrix organization (Kerzner,1989; Cleland & King,1988). By this is meant that while staff may have their disciplinary base in one area such as Agriculture or Home Economics, they may find themselves working in a number of areas outside of their disciplinary base. In so doing, they are accountable to different sets of clientele and perhaps supervisors, as well. For example, Agricultural Agents may find themselves working a portion of their time in Youth Development wherein they draw upon their disciplinary training and experience in their youth work (e.g. animal projects). In a similar vein, Home Economists may find themselves involved in nutrition education work with youth or in water quality problems with homeowners. Or, a staff person may have a joint appointment in Extension and Research wherein different functions are performed and are held up to different criteria of performance.

In subsequent chapters we examine in more detail the stages of the life cycle process and many of the concepts touched on here.

Chapter 2. Futuristic Perspectives for the Organization

Organizations will have perspectives about their future. These perspectives may develop through some formal, explicit means or informally, in a happenstance manner. If developed in the latter manner, then there may be a wide diversity of views rather than a shared view arrived at through some consensus developing procedures. In addition, they may encompass some admixture of both near term and longer term views about the organization's future. However formed, members of the **Life Cycle Guidance Team** bring these views to their team setting and such views can have a profound effect on their enthusiasm for participation as well as the quality of what they produce. It seems evident that the team's work is best served if team members have a clear sense of how their organization will function in the future and of what roles they will play in that future. Such concerns become particularly salient when we focus on the final stage of the life cycle in which program redirection and endings are dealt with. Two complementary methods for developing a consensus on these perspectives are **"strategic or longer term planning"** and **"near term work planning"**.

o Strategic Planning

Strategic planning is defined in somewhat different ways depending on the nature of the organization. For public sector and non-profit organizations a commonly used definition is "a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does and why it does it" (Bryson,1988)*. If an organization has engaged in strategic planning and if its employees are knowledgeable of such results (better yet if they participated in producing such results) then one can reasonably anticipate that the team members will bring to their work a better formed, articulated and shared **"sense of their organization"** and how it may succeed in future years. Plans developed by such means usually deal with a longer term view -- say 5 to 10 years into the future. They may of course, be renewed every few years.

o Near Term Work Planning

Yet another way in which futuristic perspectives are gained is through the development of specific near term (e.g. from several months to a few years) work plans. Such plans identify specific programs that will likely incorporate considerations from strategic planning, are subject to amendment periodically, and are the plans against which individual and group accomplishments are reported, also periodically. Employees at all levels of the organization are involved in its preparation wherein goals, objectives, resources to be used, numbers of clientele to be worked with, expected results and measures of these results are all specified. Employees involved in the preparation of such a plan will have a well developed, **near term perspective** about the nature of the organization and **of their role** in it.

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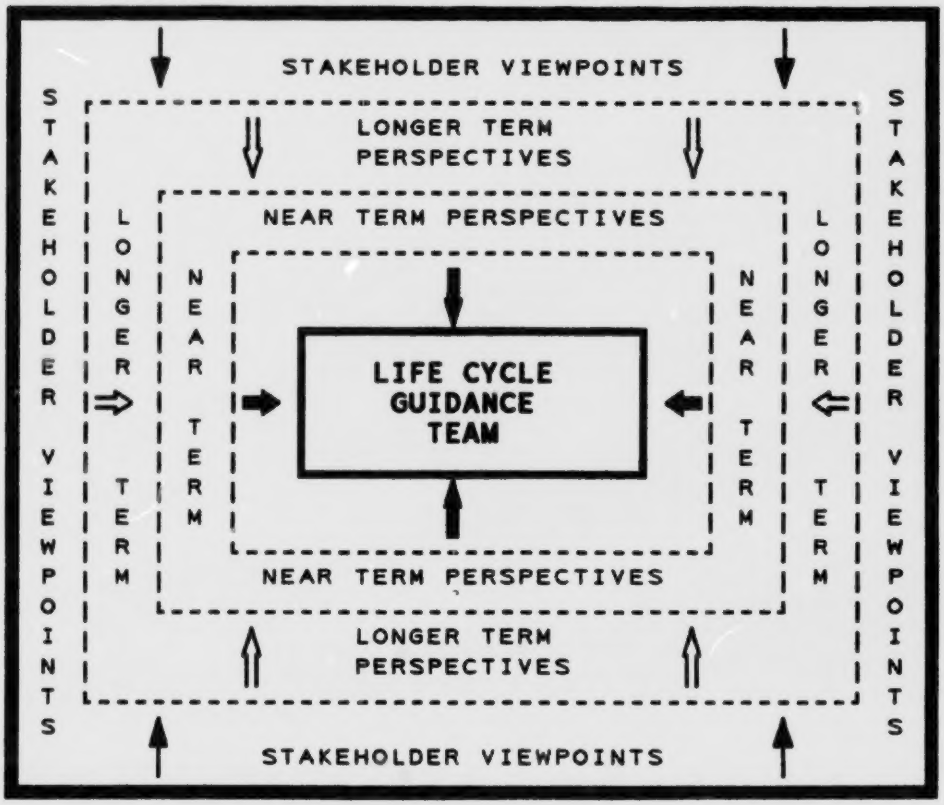
* For other definitions see: Armstrong(1985); Boyle(1981); Benveniste(1989); Coates(1986); Sadowske(1991); and, Simerly(1989).

Figure 2.1 The Role of Futuristic Perspectives in the Life Cycle Process

FUTURISTIC PERSPECTIVES FOR THE ORGANIZATION


STAKEHOLDER VIEWPOINTS
LONGER TERM PERSPECTIVES
NEAR TERM PERSPECTIVES
LIFE CYCLE GUIDANCE TEAM
NEAR TERM
LONGER TERM
STAKEHOLDER VIEWPOINTS
NEAR TERM PERSPECTIVES
LONGER TERM PERSPECTIVES
STAKEHOLDER VIEWPOINTS

0 Stakeholder Viewpoints

A critically important source of information for the development of near term and longer term plans is **stakeholder viewpoints**. Just as programs, programmatic topics or thematic areas can have stakeholders, so too can an organization. At the organizational level the more general definition of a stakeholder is "anyone who can affect or be affected by the future of an organization" (Benveniste,1989; Bryson,1988). Stakeholders will have viewpoints about the future of the organization. Plans made by soliciting and incorporating these viewpoints into their development can certainly be made stronger than by leaving them out. Figure 2.1 portrays the influence of stakeholder viewpoints on the development of near and longer term perspectives and these in turn on the work of the **Life Cycle Guidance Team**. In the Cooperative Extension System (CES) examples of stakeholders are: university staff including the President, Deans, Extension administrators, other administrative staff, field staff, officials of other concerned or cooperating organizations, organized interest groups, clientele, community leaders and elected officials, persons who assist in the provision of programs (e.g. volunteers), etc. By the nature of their involvement with the CES, stakeholders can provide useful viewpoints about the possible futures for an organization.

This is by no means the only form of stakeholder involvement. As we shall see in subsequent chapters, they can be involved in a variety of different ways in the stages of the life cycle process.

Chapter 3. Problem Finding

This chapter utilizes a general problem solving approach to focus on the general nature of a problem as well as how problems are found, described and possible solutions identified. Needs are seen as a special class of problems for which a solution exists. Different kinds of needs are identified as well as a taxonomy that allows for their classification. The roles of stakeholders and the Life-Cycle Guidance Team are discussed as are the pre-conditions necessary for the problem-solving process. Programs are seen as efforts to ameliorate or resolve problems.

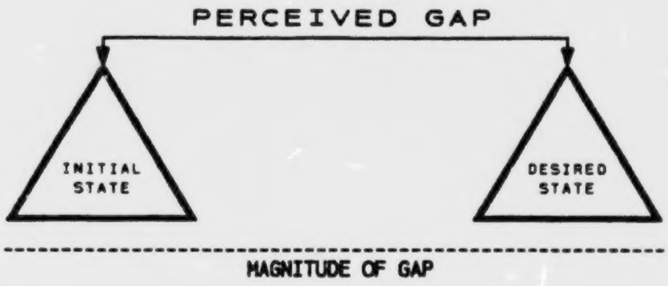
3.1 A Problem-Solving Process

A problem is said to exist when a **gap** is **perceived** between an **existing condition** or state (the what is) and a **desired condition** or state (the what should be) (Van Gundy, 1988a). Figure 3.1 portrays the nature of a problem. If there is no gap then there is no problem. The terms **perceived** and **desired** receive special emphasis because they encompass the notions of value and pluralism. That is, what some persons perceive as a gap others do not because they hold a very different set of values about what is important. Desire also enters in because it involves not only the "what is" but the "what should be" as well. For example, the nature and magnitude of a gap will depend very much on what state or condition is desired. If there is a divergence of opinion about the desired condition(s) then no solution(s) may be possible. Further, conditions or states can change very rapidly so that they are best thought of as dynamic rather than static. Hence, Van Gundy (1988b) defines **a problem** as "a set of ongoing perceptions held about a constantly changing gap between a desired and existing state." By viewing problems as dynamic in nature one: avoids prematurely fixing on a symptom and a cause rather then considering multiple alternatives; is more open to consider new information since no boundaries have been established; and, is more likely to view the problem in a way in which adaptations to environmental changes can be more readily made (Van Gundy, 1988b). The major disadvantage in using a dynamic definition is that it is more difficult to reach closure on a problem and develop a solution to resolve it. However, difficulty in reaching closure forces us to engage in a **problem finding approach**. The problem finding approach entails a series of redefinitions or alternative definitions of the problem until one redefinition of the problem is seen as a solution. This is called a **problution** "to symbolize the close relationship between problems and solutions" (Van Gundy, 1988b).

Problems can be classified according to their degree of structure (Van Gundy, 1988a) as follows:

- Well-structured - has all the information available to close the gap.
- Semi-structured - has enough information available to at least

Figure 3.1 The Nature of A Problem



partially define the nature of the gap but there is a lack of certainty about the actual or desired state or about how to close it.

- Ill-structured - lacks information on how to close the gap.

For the well-structured problem, routine solutions can be obtained readily. For the semi-structured problem, some combination of routine and creative solutions are required whereas, for the ill-structured problem, solutions have to be created as part of the problem-solving process.*

A general problem-solving model involving the three phases of Intelligence, Design and Choice is given in Figure 3.2 (as adapted from Van Gundy, 1988a, p. 7). Examination of this model shows that many of the steps in these phases are the same as those involved in deciding whether or not some form of an educational program, either alone or in combination with other efforts, can help to solve or ameliorate a problem.

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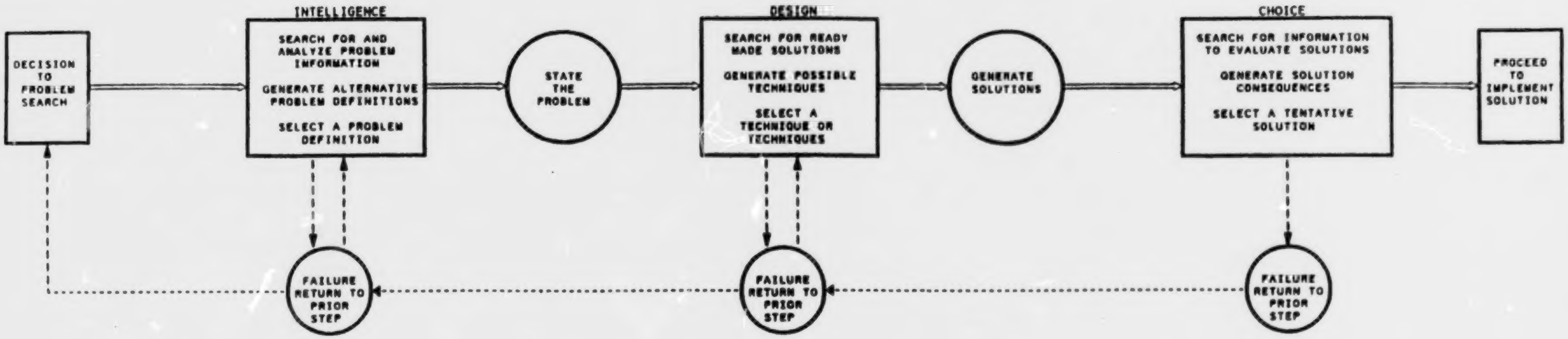
* Techniques for reaching such solutions are given by Van Gundy (1988a).

Figure 3.2 Adaptation of an Expanded Problem Solving Model


DECISION TO PROBLEM SEARCH
INTELLIGENCE
SEARCH FOR AND ANALYZE PROBLEM INFORMATION
GENERATE ALTERNATIVE PROBLEM DEFINITIONS
SELECT A PROBLEM DEFINITION
STATE THE PROBLEM
DESIGN
SEARCH FOR READY MADE SOLUTIONS
GENERATE POSSIBLE TECHNIQUES
SELECT A TECHNIQUE OR TECHNIQUES
GENERATE SOLUTIONS
CHOICE
SEARCH FOR INFORMATION TO EVALUATE SOLUTIONS
GENERATE SOLUTION CONSEQUENCES
SELECT A TENTATIVE SOLUTION
PROCEED TO IMPLEMENT SOLUTION
FAILURE RETURN TO PRIOR STEP
FAILURE RETURN TO PRIOR STEP
FAILURE RETURN TO PRIOR STEP

ADAPTED FROM VAN GUNDY (1988A)

3.2 Sources and Techniques for Problem Searching

Problems may emerge through a deliberate search or they may be thrust upon us by circumstances. Usually we try to identify problems in a systematic way so that we might better understand their origins. To do this we seek information from a number of **sources** using a variety of **techniques** or methods. Some **techniques** commonly used are:

- **Scanning** of key sources such as media coverage, documents, social indicators or through the observations of key "scanners" (persons who are strategically situated and committed to perform some form of observation) (Coates, 1986).
- **Surveys** including mail questionnaires and interviews (phone and face-to-face) (Dillman, 1978).
- **Structured Group Processes** in which groups are especially formed, usually so that the group setting can foster the views expressed. Examples of some of these are:
    - **Hearings or forums** in which participation by concerned parties can be voluntary or solicited and can utilize "town-hall" sessions or interactive TV link-ups (McKillip, 1987; United Way, 1982).
    - **Contrived groups** in which a set of fixed, interactive procedures are followed to elicit views not usually obtainable by other means. Examples of these are focus groups (Krueger, 1988; Stewart, 1990); nominal and Delphi groups (Moore, 1987) and structured problem-solving groups (Van Gundy, 1988a).
- **Investigative reporting** in which a skeptical observer goes out to "scout" around to see what they can "dig up" (Douglas, 1976; N. Smith, 1992).
- **Events,** which can be of two types:
    - **Extant** - those already in existence (e.g., fairs, church gatherings, etc.) which can be "piggy backed" for purposes of gathering information;

  - **Contrived** - those which are especially created so as to gather information (e.g. devoting a day or week in which problems will be identified, United Way, 1982).

Some of the **sources** from which information can be obtained are:

- Analysis of **extant** information such as that available from Census data, health or literacy surveys, archives or record systems, special studies, budget information on allocations and/or expenditures, etc.
- Solicitation of information or advice from **extant groups or organizations** formed for other purposes but from whom particular viewpoints would be useful **or** as in Extension, from ongoing, institutionalized **advisory committees** formed particularly for purposes of problem identification (Cole & Cole, 1983).
- Solicitation of **expert opinion** from key informants such as subject matter experts, elected officials and community leaders, affected or concerned clientele or citizens, staff or clientele of related topical areas or organizations, or others who are so situated that they bring a particular viewpoint judged to be useful.

It is obvious from the examples that our distinction between **techniques** and **sources** is not always a clear one. For example, an **event** can be a technique when it is especially created or a **source** when it already exists. Nevertheless, these examples do serve to illustrate some possibilities.

3.3 A Framework for Problem Analysis

In any general problem finding effort a number of problem conditions are likely to be identified. If they can be separated from one another then one can focus on each in turn. Alternatively they may be so closely related that they have to be considered together. In any case some framework or series of questions to guide the analysis is needed. One such, adapted from the health services area is given briefly below (Kettner, et. al. 1990) followed by some examples taken from work in the Cooperative Extension System:

1. **What is the nature of the condition or situation?**

   This refers to the initial state in our problem model in Figure 3.1. It entails an analysis and synthesis of all of the information collected using some of the different techniques and sources cited earlier. This analysis and synthesis may involve many of the myriad quantitative and qualitative methods available plus visuals, graphics and simple verbal summaries (Patton, 1990; Rossi et.al, 1985). In this step, care must be taken to insure that all viewpoints have been included and that the problem has **not** been labeled prematurely.

2. **How are terms defined?**

   Explicit definitions with agreed upon meanings must be used. Terms should not be pejorative in nature or carry surplus meanings that could misdirect one's thinking.

3. **What are the characteristics of those experiencing the condition?**

   Usually this entails the description of those experiencing the condition in socio-demographic terms, such as attributes of the entity (person or thing, animate or inanimate) involved.

4. **What is the scale and distribution of the condition?**

   This question deals with how many are affected by the condition and where they are located.

5. **What is the nature of the threat from the existence of the condition? Who or what is at risk because the condition exists? What are the implications if the condition persists?**

6. **How widely is the condition recognized? Is wide recognition needed in order to mobilize support for dealing with the condition?**

7. **Who defines the condition as a problem? Who might be in favor or oppose doing anything about the condition? Who stands to lose or gain by action or inaction?**

8. **What is (are) the origin(s) of the condition?**

   Is there a single cause or are there multiple causes? Can causation be identified at all? Can the condition be modeled using some causal or sequential chain of events so that points of intervention and/or prevention can be identified? Is enough known or is new knowledge or research needed on some aspect of the condition?

9. **Are there special aspects of the condition that should be recognized? Are there ethical or cultural aspects of the condition that need to be recognized? Are some groups of much or little influence involved? Are there ethnic or gender concerns that need to be addressed? Is there a tendency to "blame" individuals for system shortcomings or vice-verse (Rogers,1983)?**

The reader may think of even more questions that can be added to this list. In Table 3.1 we have subjected each of the hypothetical conditions to this set of questions as a way of illustrating how they can be applied.

Table 3.1 APPLICATION OF PROBLEM ANALYSIS FRAMEWORK TO HYPOTHETICAL CONDITIONS

Hypothetical Condition	What Is The Nature Of The Condition?	How Are Terms Defined?	What Is The Scale & Distribution?	What Is The Nature Of The Threat?	How Widely Is The Condition Recognized?	Who Defines The Condition As A Problem?	What Are The Origins Of The Condition?	Are There Special Aspects?
Water Quality	Pollutants reach dangerous levels for ground water & for surface water	Differently for lay and technical groups	Wide-spread in 5 States, localized in others	Aquatic life threatened or destroyed. Water unfit for consumption. Wide-spread sickness	Some media coverage but public unaware	Environmental protection agencies	Use of chemicals by agricultural producers & homeowners. Researchers have simulation models	Fishing industry loses 2/3 of yield; recreational uses of surface water sharply curtailed
Elder Care	Increasing costs due to increase in number of elderly institutionalized	No ambiguity nor pejorativeness	Elderly in 3 major cities in state X	Increase in taxes to support institutions will suppress local economy	Wide-spread public concern about tax increase	State administration on ageing	Increase in number of elderly living alone due to death of spouse &/or indigence	Rapid decline of elderly once institutionalized
Food Safety	Increase in number and level of contaminants in food chain	Differently for lay and technical groups; choice of terms may mislead (e.g., not all additives are harmful)	Nationwide affecting all consumers	Increase in health risks due to ingestion; increase in health costs	Wide-spread public awareness with no change in consumption patterns	Consumer interest groups	Use of chemicals by food producers & processors; research needed on toxicity levels; models can be developed	Scare tactics may irreparably harm some producer groups

Farm Failures	Increase in farm failures & bankruptcies	No ambiguity	Wide-spread in 42 States	Loss of family farms & no. of farmers; decline of rural economies	Public awareness but little concern	Federal, State & local governments	Depressed farm income due to use of improved production techniques	Increase in personal & family stress; Growth in corporate farming
Small Town Businesses	Increase in no. of small town business failures	No ambiguity	Wide-spread in all rural areas	Increase in unemployment; Deterioration of small town tax base & infrastructure; outmigration	Great awareness in affected towns & their elected officials, none elsewhere	Small town governments	Influx of large scale merchandisers located outside of towns	Increase in personal & family stress; Loss of sense of community
Adolescent Pregnancy & Parenting	Increase in teen pregnancies	Choice of terms may be pejorative	Wide-spread with highest incidence in low-income urban areas	Increase in infant health problems; Increase in social dependency and school dropout	Wide-spread recognition with government health & educational programs	Parents, school personnel & elected officials	Increasing sexual activity among teens; Lack of conception control; Peer pressure & beliefs; Need for affection & sense of belonging; Earlier physical maturation; models can be developed	Opportunity costs of early parenthood; Increase in personal & family stress; Religious concerns for entire topic as well as possible solutions

3.4 Needs as Problutions

We have tried to distinguish between problem identification and problem solution because there is a very strong tendency to jump to solutions prematurely, before the problem is well understood (Van Gundy, 1988a; Kettner et.al., 1990). The concept of **need** is often regarded as defining a problem whereas it really focuses on what can be done about a problem. McKillip (1987) defines a need as **"the value judgment that some group has a problem that can be solved"** (emphasis author's). Hence, needs can more readily fall into the category that Van Gundy (1988a; 1988b) has called **"problutions"** if they are based on a thorough understanding of the problem. If they are not based on a thorough understanding of the problem then they might best be classified as solutions in search of problems--a condition that may prevail more than most would like to admit.

In any event, **values** are seen as playing a key role in defining not only what a problem is but what can be done about it as well. Since the needs concept is involved in problem solution we may want to explore it in more detail. Theorists differ on the interpretation of need and several different kinds have been identified (Kettner et. al., 1990; McKillip, 1987). In the psychological realm need is sometimes seen as an organic imbalance or deficit which leads to behavior designed to reduce the deficit (Bandura, 1986; Tyler, 1971; Maslow, 1954). Thirst and hunger are obvious examples which meet this definition. However, for the human make-up perhaps the best known needs are from Maslow's hierarchy. Maslow proposes **a hierarchy of needs** starting with physiological survival needs (e.g., food, clothing, shelter). Only if these needs are met at some minimum level can needs at the next level be satisfied (e.g., safety and security). And only if these latter have been met can one deal with the higher order needs for love and belonging, self-esteem, self-actualization (viz., realization of one's full potential), knowing and understanding, and aesthetics.

There are two points especially worthy of note about this concept of a hierarchy of needs. First, some needs are more basic than others. It's obvious that it is difficult to learn if you are hungry or cold. Second, in order to satisfy the higher order needs, the lower order needs must **continue** to be met. Some theorists call these **maintenance needs** (Scriven & Roth, 1978). **If such met needs suddenly become unmet, then efforts directed towards the higher order needs on which they are based may fail.**

Four different types of need have been identified (Kettner, et.al., 1990). They are called **normative, perceived, expressed** and **relative. Normative** needs involve the use of a standard or norms against which the nature of a condition is assessed. Usually, these standards are established through laws, customs, general beliefs or scientific research (e.g., children need at least X calories/day to grow properly or, no one should go hungry for a period of 24 hours). **Perceived** needs refer to what people think or feel their needs are. These can be very different from needs as judged by some objective standard. **Expressed** needs refer to those that are met or unmet. For example, for a given service such as inoculations, one can determine how many received the service (met) and how many did not (unmet). The notion of **overmet needs** can also enter in here (United Way, 1982) wherein persons receive more of a service than is warranted. Finally, **relative** need refers to the level of services that one group or community receives vis-a-vis other groups or communities and reflects a concern for equity. For example, the level of services for an affluent community compared to one of low-income. Although these conceptions of need are not necessarily mutually exclusive (e.g., expressed needs can be compared to a norm, to perceived needs or relative to those of other communities) they do serve to illustrate a variety of ways of looking at needs.

Connors (1992) identifies 5 factors which affect the delineation of need: (1) **the definer of need** (self vs. other); (2) **the target of change** (individual vs. social structure); (3) **the source of need** (viz. responsibility for occurrence) (external vs. internal); (4) **remediability** (fixed vs. changing condition); (5) **satisfier responsibility** (personal vs. public). Such a taxonomy can be useful not only in conceptualizing needs but in determining how they might be assessed and redressed as well.

We have not yet mentioned what roles the **life cycle guidance team** and **stakeholders** will play in the problem finding phase. Before we do so, it is appropriate to deal with the issue of who conducts the problem finding activities.

3.5 Who Conducts Problem Finding Activities?

Ideally problem finding activities would be conducted by an organization that had specialized expertise in such matters but that would not be involved in or in any way gain from a particular solution. Such activities would be conducted at a very general level and involve a broad range of citizenry residing in a particular locale. This **general problem finding** approach would sort out the problems identified and their possible solutions and identify the various actors, agencies, entities etc., that would work on solutions for which they were best qualified. Although this general approach is known to occur, especially in rural communities, it is more usual to find **targeted problem finding** efforts. It is quite common to find specialized agencies seeking problems related to their specialization. For example, education agencies are usually the ones to find educational problems and their solutions, health agencies, health problems and their solutions, etc. Due to its broad community focus, Extension quite often finds problems whose solutions involve a host of other agencies even though there may be an educational effort involved as part of the solution.

3.6 What Roles Do the Life Cycle Guidance Team and Stakeholders Play in the Problem Finding Process?

Depending upon who conducts the problem finding activities the **life cycle guidance team** may not be formed until very near the end of this stage when the various agencies and actors are identified who will work on the solutions to different problems or to different parts of the same problem. In this latter case, the team will be composed of staff who have expertise related to the topic and who represent different levels and divisions of the organization. For example, Extension would draw upon field and State staff, as well as administrators and specialists (perhaps researchers too). If the life cycle team is formed earlier in this stage it is likely that they would serve initially as representatives to a larger problem finding task force and later as representatives of that task force to the team(s) formed for subsequent phases. They would provide **"linkage expertise"** for transition from the Problem Finding to the Design stage. [The assignment of team members is dealt with in more detail in the Design stage.]

What about **stakeholders**? Stakeholders in the broadest sense of the term would be embedded in the previous mentioned sources of information. They were not mentioned as stakeholders there because in the general problem finding approach it is difficult to meaningfully speak of a stakeholder until a topic is identified. However, in the targeted problem finding approach, stakeholders would be the source of much of the information. In subsequent stages, the roles of stakeholder and the life cycle guidance team become more pronounced.

3.7 Pre-Conditions for the Problem-Solving Process

Van Gundy (1988a) asserts that the following preconditions are necessary before the problem-solving process can begin. They are: (1) a gap between what is and what should be exists; (2) there is an awareness of (1); (3) there is a desire or motivation to decrease the gap; (4) the size of the gap can be measured; and, (5) the abilities and resources required to close the gap are available. Subsequent chapters deal with devising a program to ameliorate or resolve the problem that has been identified (viz., to close the gap).

4. Designing a Program for the Problem: An Overview

Now that a problem has been identified we can begin to devise a program to deal with it. In this chapter we introduce a set of concepts and procedures that enable an organization to develop the design of a program. In the next four chapters we describe these concepts and procedures in greater detail. We then introduce an illustrative program design that is based on extensive work in the Cooperative Extension System. This illustrative design not only serves to demonstrate in detail the concepts and products involved but also serves as the basis for the discussion of later stages as well.

4.1 What Is Program Design?

This section describes a process that has been devised to determine how a program will be developed and implemented and with what results. We have come to call this process **program design**--by which we mean **a theoretical framework for describing the effects and consequences of a program as they are related to its development and implementation**. It is in a sense the plan of a program plan (Ruchelman, 1985) or, if you will, a "blueprint" of a plan.

Program design was developed in the Cooperative Extension System in response to a recognized need to have a more disciplined way of developing programs, especially for topics that cut across disciplinary boundaries. It is an outgrowth of techniques that were originally developed or adapted by evaluators to the evaluation planning process in order to make evaluation results more relevant and useful. It is intended to increase the likelihood that programs will be successful.

The process employs two main concepts: **program modeling**; and, **stakeholder viewpoints**. In the former, models are developed of key aspects of how the program plan will be carried out in a sequential manner, by what staff and with what consequences, in schematic form. In the latter, viewpoints are obtained from persons who have a special interest in or influence over the problem area being addressed in order to better inform the modeling process. These two concepts are implemented through the efforts of a team of six to fifteen persons who have expertise in developing and delivering to clientele programs related to the problem area of interest. This is called a **staff-centered approach**. It has proven especially useful in bringing together and developing a **consensus** among persons who are separated due to boundaries established by geography, organization, disciplines and, in some cases, even personalities.

This staff-centered approach is activated through the efforts of a **group facilitator(s)** who directs and moderates the efforts of the group as they work their way through a sequence of disciplined steps that take place in a series of workshop sessions spaced over a period of days, weeks or even months. The products as they result from these sessions, are codified and put in more readable form by an organizational contact person (or their designate).

TABLE 4.1 PROTOTYPE AGENDA OF A WORKSHOP FOR THE DESIGN OF PROGRAM XYZ

Purpose: (1) to develop a program design for use as a guide to program development, implementation and evaluation; (2) to determine key stakeholder interests in the way the program might be (or has been) designed, developed, implemented and evaluated; and (3) to ascertain the implications of (2) for program design, development, implementation and evaluation.

FIRST SESSION (2 DAYS)

DAYS	#	ACTIVITY
1/8	1.	INTRODUCTION TO CONCEPTS AND PROCEDURES WITH AN EXAMPLE.
1/8	2.	BRIEF DISCUSSION OF STAKEHOLDERS AND IDENTIFICATION OF GENERAL CATEGORIES.
1+	3.	FORMULATION OF PROGRAM LOGIC MODEL, FUNCTIONAL AND INDICATOR COMPONENTS.
1/2	4.	DEVELOPMENT/ADAPTATION OF SPECIFIC STAKEHOLDER QUESTIONS, IDENTIFICATION OF INDIVIDUAL STAKEHOLDERS TO BE INTERVIEWED AND DEVELOPMENT OF LETTERS AND INTERVIEW PROCEDURES. DEVELOPMENT OF **PLAN** FOR: CONDUCT, TRANSCRIPTION AND ANALYSIS OF INTERVIEWS; REVIEW AND ANALYSIS OF DOCUMENTS (AS RELEVANT).
1/8	5.	CONTINUATION OF MODELING (AS TIME PERMITS): IDENTIFY RESOURCES, BARRIERS, BARRIER REDUCTIONS AND SPINOFFS.

PLAN is conducted in 2 to 3 intervening months by organization responsible for Program XYZ

SECOND SESSION (2 DAYS)

DAYS	#	ACTIVITY
3/4-1	6.	REVIEW AND SUMMARY OF INTERVIEW RESULTS.
3/4-1	7.	REVIEW OF MODELS AND COMPLETION OF MODELING.
1/4	8.	DEVELOP CONCLUSIONS, RECOMMENDATIONS AND NEXT STEPS; CONDUCT ADMINISTRATIVE BRIEFING(AS APPROPRIATE)

Report is prepared by the organization responsible for Program XYZ

WHO TYPICALLY ATTENDS THE WORKSHOPS:
EG. 3-8 PROGRAM PROVIDERS WHO IMPACT DIRECTLY ON CLIENTELE
2-6 PROGRAM ADMINISTRATORS &/OR SUBJECT-MATTER SPECIALISTS
1 ORGANIZATIONAL CONTACT FOR WORKSHOP ARRANGEMENTS, INTERVIEWS AND REPORT PREPARATIONS

Unlike the design team participants, the facilitator(s) does not need to be an expert in the subject-matter under consideration. Indeed, such expertise might conflict with the conduct of their duties. These efforts result in a program plan which is an agreed to product of the design team's efforts based on their collective knowledge and experience. It could not have been produced by any single member working alone. It enhances the likelihood of success of what will be done because those who are part of the team and/or their colleagues--those who must carry out the plan--have an explicit, agreed to guide to action.

Table 4.1 displays a typical agenda for the workshop series. As is apparent from examination of this table, most of the work is done during the work group sessions. Typically, 2 sessions of 2 days duration are required. However, with some complex topics such as Water Quality, Youth Development or Leadership Development, a third or even fourth session might be required. The design team might also elect to hold a **verification session** in which program providers and subject matter specialists who were not part of the team are brought in to see how the modeling results conform to their thinking and experience.

In this and subsequent chapters we expand upon the origin and use of the program design process and provide a number of illustrations based on experience in more than thirty different situations and topical areas.

4.2 What Does the Program Design Process Involve?

In the early years of evaluation at the Federal level (late 1960's and early 1970's) many program evaluations were designed on the basis of high level managers conceptions of what the program was. Although expensive and time consuming some of these evaluations were inconclusive. Detailed examination of these programs showed that their evaluations were inconclusive because the programs were not being carried out in the way the managers thought or because there were not any programs. Consequently, the information collected was irrelevant.

A technique called Evaluability Assessment (EA) (Wholey, 1979, 1987) was developed to determine if there was a "program." If so, then EA would help to determine what kinds of evaluation might be most useful. If not, then EA would help to determine how a "program" might be developed.

EA procedures were developed with "top down" programs (viz., programs developed at higher levels to be carried out by lower levels). These procedures were adapted to the "grass-roots up" type of programming (viz., programs developed at the local level and aggregated upwards) conducted in the Cooperative Extension System, by Smith (1989a). In using these adapted procedures it became increasingly clear that they were useful not only for planning evaluations but, with some modifications, for planning programs as well. These modified procedures, called **program design** are presented in this and the following chapters.

For program design or evaluation, the preceding procedures have been used successfully with the following program topics in the States/territories indicated:

Teleconferencing for Locally
  Elected Officials* (IL)
Master Gardener* (CA)
Aquaculture* (TX)
4-H Youth Development*
  (MD, PA, MS, CT, LA)
Home Based Business* (OK, AL)
Family Well Being (DE)
Economic Development (AR, KS,
  MO, IA, NE)
Rural Revitalization (DC: USDA)
Water Quality* (MD, VA, CT, LA)
Community Resource Development
  (American Samoa)
Adolescent Pregnancy & Parenting
  (NCA&T)
Child Care (ME)
Leadership Development (ME, LA)
Training Programs for the
  Elderly (ME)
Middle Management 4-H (HI)
Import Substitution (Guam,
  Northern Marianas)
Growing Your Own
  Food (Micronesia)
System for Planning
  & Reporting (KS, IL)
Families With Young Children
  at Risk (1890 Consortium: MO,
  TN, MS, AR, AL, NC, VA)
Area Agents/Specialists (NC)

Before any design team activities are considered however, a major step is to obtain administrative commitment. This step may involve a good deal of time and effort, for some one individual or group must be persuaded that such a commitment of resources in terms of staff time, travel and interviews is worth the effort for the particular topic. This person may be the State Extension Director, the Administrative Council or a State Leader for a particular topic such as Youth at Risk, Food Safety, Waste Management, Water Quality etc. [Often the person doing the persuading has been a State Evaluator working in concert with their counterpart from the Federal office.] Others may have to be consulted before a decision is made. If a decision is made in the affirmative then an organizational contact person must be named, the design team members selected and dates set for the first meeting.**

The selection of design team members is an absolutely critical decision which will affect the success of the entire effort. The decision has two aspects: who--in terms of knowledge and experience; and, how many. For the latter there is no hard and fast number. Since the process entails a great deal of interaction among members--the larger the group the more discussion that is required--hence, the greater the amount of time required. To meet the needs of an experience **and** organizational mixture about 6 to 12 persons are usually involved--a smaller number would run the risk of lack of credibility and a larger number could be unwieldy. It is **an absolute requirement** that some of the members, preferably a majority, are program providers who work with and impact directly on clientele or potential clientele, in the topical area under consideration, broadly defined. For example, if the topic involved youth but had never been dealt with before, we would want staff who work directly with youth of that age to be involved. The remainder of the group* is comprised of subject-matter specialists for the topic of concern and administrative staff. The involvement of a high level administrator may demonstrate the importance that is attached to the effort and hence have a salutary effect on the motivation of the design team--provided of course that their presence does not inhibit the functioning of the group. The program providers on the group serve as "reality filters" to insure that what is proposed is practical or "do-able." The staff named to the group should be ones who will be able to participate in **all** of the meetings. Absences and ins-and-outs can be extremely disruptive and should be minimized (or eliminated in the case of ins-and-outs). **Isolation of the group from their ordinary activities is very desirable**.

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* Topics dealt with initially by Smith (1989a)

**Usually when a decision is made not to proceed the most frequent reason given is that there is no staff person who has the time and appropriate experience to serve as the organizational contact. A second reason is that there are often already excessive demands on the staff's time and a third, that the timing is not right for where they are with respect to the topic.

Finding a time when all of the design team members can get together may be difficult and may require holding the first meeting two to three months after the assignments are made. Similar problems may be encountered for subsequent meetings.Finally, a person needs to be selected to serve as the workshop facilitator. This person must be experienced with respect to the program design process and should preferably have some training and/or experience in program evaluation. The facilitator **must** be a third party to the topic of concern and preferably should be a third party to the organization itself. Experience has shown that the work group members are more inclined to attend to the tasks at hand if the facilitator is not "one of their own." Then too, by being a non-expert the facilitator can ask many "dumb" questions that can be revealing or even challenging without threatening the design team members. Two facilitators reduces fatigue and increases variety for the team.

Once the design team has been convened and some introductory preliminaries and administrative endorsements dealt with, the activities in Table 4.1 can be initiated. A handout of materials is used by the facilitator to introduce the group to the process (see Appendix A). The cover sheet, like that in Table 4.1, is discussed by the facilitator in sufficient detail to provide some clarification and incentive. Next, major concepts are introduced starting with a brief explanation of stakeholders and program modeling. Other key concepts are introduced and explained briefly through illustrations of actual and generic models, stakeholder identification and generic questions, interview guidance, etc. A brief history of the development of the program design process is discussed as well as the benefits that derive from the process. An actual example report is then given, also as a handout (see Mayeske, 1991), which serves to familiarize the group with one of the major products.

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*Experienced volunteers &/or potential clientele might also be included if such participation can be deemed meaningful & productive. For example, in Maine's Leadership Development effort they included an experienced volunteer who participated fully & made excellent contributions (Killam,1991). Similarly, for their project on Adolescent Pregnancy & Parenting, NCA&T included some teen parents in the initial session, with excellent participation, especially by the girls (Wade,1993). If appropriate, members of other organizations or agencies might be included on the team, especially if it would be important to their agency's involvement later on.

Since these concepts are developed and expanded upon in subsequent chapters they will be dealt with in only a cursory manner here. With respect to program modeling the steps are as follows: a set of major or **main events** can be identified which comprise the program, its effects and consequences and which are sequentially and causally related to one another such that if one event fails to occur then all of those succeeding it in the causal chain also fail to occur (**the program logic model**); for each main event of the program, a set of activities with a corresponding set of resources, can be identified which must be accomplished in order for the main event to occur (**the functional component**); for each activity in the functional component one or more sources of evidence of the occurrence of that activity can be identified (**the indicator component**--used also for effects and their consequences); things happen that can perturb or disrupt the causal relationships (called **barriers**) but can perhaps be overcome by special efforts (called **barrier reductions**); things happen once the program effects have occurred which perturb or prevent the consequences from taking place and are difficult or impossible to overcome by special efforts (called **intervening events**); and, for the occurrence of each main event in the program logic model, unplanned effects may also occur which can be positive or negative, known or unknown (called **spin-offs**). In order to inform this modeling process as well as other aspects of the program design process, information is collected from **a judgmental sample** (Patton, 1990; Henry, 1990) **of stakeholders** concerning their views about the nature of the problem, issue or need and how it should be addressed, and by whom.

Once the preceding concepts have been discussed the facilitator introduces the concept of **stakeholders**, gives a working definition: **an individual or group who has a special interest in or influence over the topic or program-to-be and who can provide information that will be useful for the design, development, implementation and evaluation of the program**; and asks the group to identify some general **categories** of stakeholders. This brief exercise helps to "map the environment" or delineate spheres of influence/concern for the topical area or program-to-be. It usually produces too many categories, some of which may be of questionable relevance or utility. Rather than deal with that then, the facilitator usually waits until a later stage when some of the modeling has been completed and the group has a better sense of what they are about.

The modeling is then initiated by starting with the development of the matrix of program effects. We have dealt primarily with educational programs so we call it the Matrix of Educational Effects. The group identifies the target audience(s) for the program to be and then systematically completes the cells of the matrix using categories from the Bennett hierarchy (1979) of: **K**nowledge, **A**ttitudes, **S**kills, **A**spirations and **B**ehavior (or practice) changes. This matrix of effects (E) is then used as the basis for identifying their consequences (C) and antecedents (A). That is, what events logically follow as a result of E and what events must logically precede E in order to insure that E occurs, depicted as:

A----->E----->C

and read: **If A then E, If E then C**. Once all of these events have been identified then the activities/resources are identified for the A events and the indicators are identified for all of the events in the program logic model.

The modeling process is interrupted in order to deal in more detail with stakeholders. Some generic questions are reviewed and either adapted or new ones are developed that are appropriate for the topic. These may be further refined or tailored to different categories of stakeholders once they have been identified. A list of specific stakeholders is then identified, a contact letter is developed as well as other interview procedures. Relevant documents such as task force reports, evaluation studies of related topics, program plans, etc., are identified at this point. If there is a need to review them, because no one on the work group is familiar with them, then some members of the group need to be given the assignment of orally reporting them at their next meeting so that the results can be used by the group in their deliberations. Upon completion of this step the team resumes the modeling process until it is time to recess.

The recess period usually lasts 6 to 12 weeks during which time the organizational contact person sees to it that the interviews are conducted, and transcribed. The length of this period is usually determined by the need for time to complete the stakeholder interviews and the calendars' of the group members. On meeting again, the group divides up the interview results into groups of stakeholders with at least 2 members reviewing each of the sub-groups, discussing them with one another to reach agreement on their meaning and making some cryptic summary notes. These cryptic summaries are then reported to the full group and entered into a matrix format of question answers by stakeholder groups (on flip chart papers) by the facilitator(s). After reviewing and discussing these summaries, the group makes some general thematic observations about their results and implications. The group then reviews and completes the modeling started in the first session. Finally, the group makes some conclusions and recommendations for administration and a report of all the group's work is prepared, usually by the organizational contact. A briefing of the top level administrator(s) by the team may be included in these efforts. Among other uses, this report serves as the "blueprint" for program development and implementation.

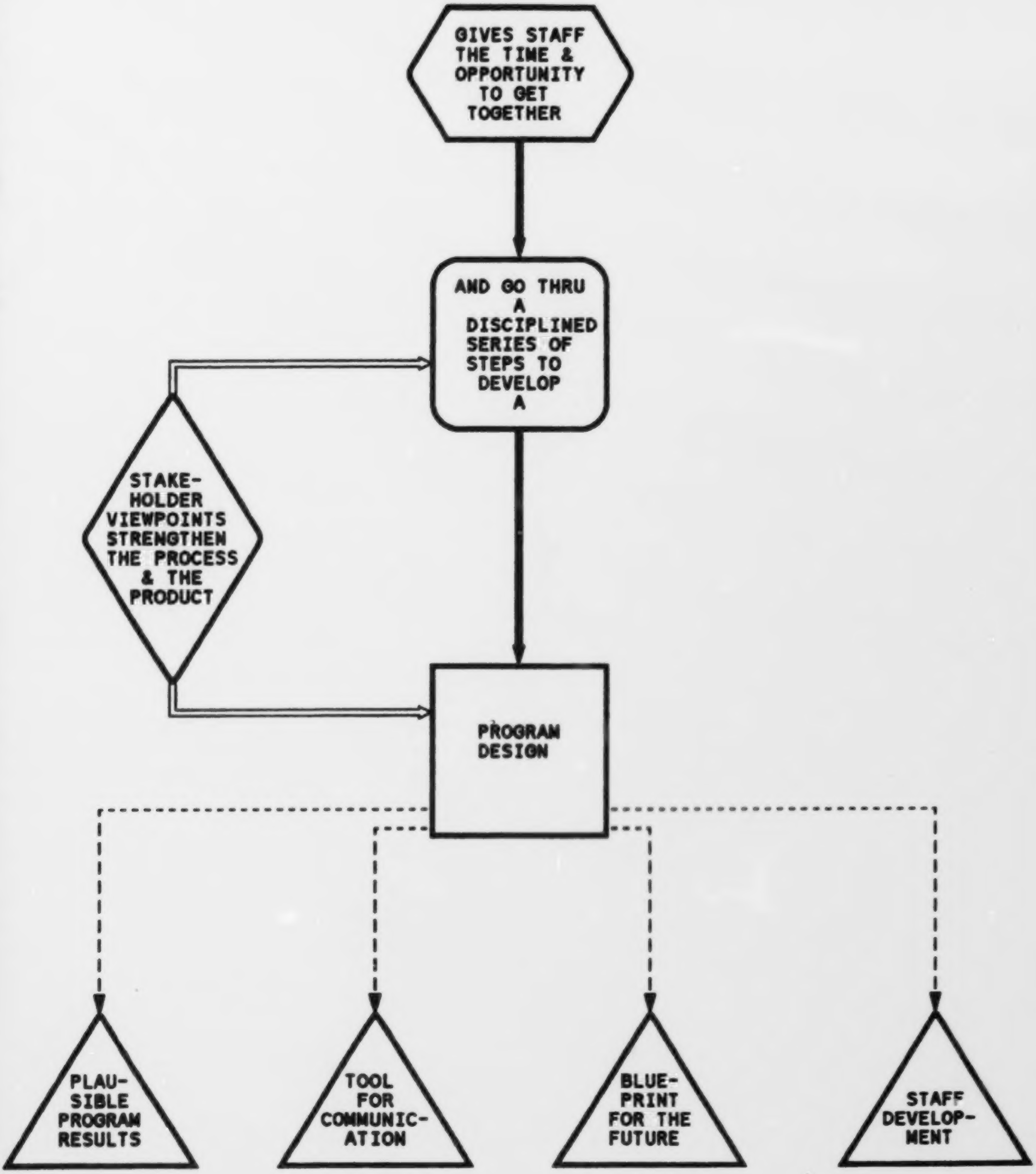
4.3 What are the Benefits from the Program Design Process?

The results of this process increase the likelihood that later efforts will be successful by:

- involving staff in the process by giving them the time and the opportunity to meet together and reach a consensus on the "blueprint";
- providing an explicit causal framework for articulating the program's nature, effects and consequences;
- identifying things that can go wrong and what might be done about them before they occur;
- identifying unplanned results from carrying out the program in a particular way;
- specifying sources of evidence that can be examined and/or obtained to judge adequacy of program implementation and degree of program impact;
- involving persons of influence with respect to the topic and obtaining guidance from them before the program is developed;
- clarifying to administration the nature of their commitment, especially with regard to resources;
- enhancing the likelihood of resource commitment through an explicit, agreed upon plan that encompasses stakeholder viewpoints;
- providing an effects oriented guide for program development;
- providing a framework to communicate the program to others;
- providing an agreed upon "blueprint" for future action;
- increasing the acceptance of measured effects once the program is implemented, as resulting from the program.

The process also has some direct benefits to the staff in terms of improving their program planning and evaluation skills and, to the organization in terms of increasing its visibility with stakeholders for the topic of concern.
Figure 4.1 gives a graphic summary of some of these steps and benefits.

Figure 4.1 Graphic Summary of Steps in & Benefits from the Program Design Process

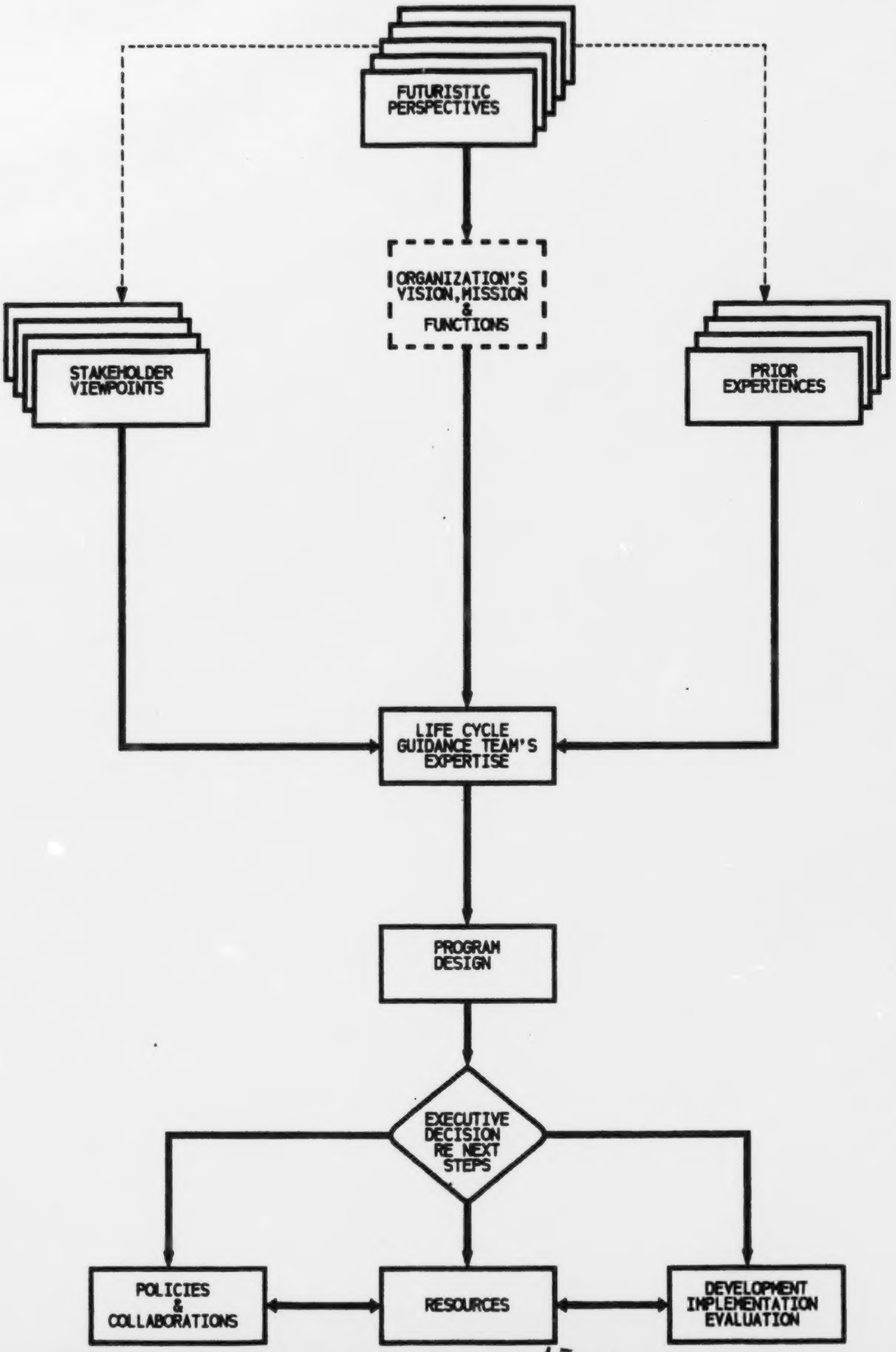

GIVES STAFF THE TIME & OPPORTUNITY TO GET TOGETHER
AND GO THRU A DISCIPLINED SERIES OF STEPS TO DEVELOP A
STAKE-HOLDER VIEWPOINTS STRENGTHEN THE PROCESS & THE PRODUCT
PROGRAM DESIGN
PLAU-SIBLE PROGRAM RESULTS
TOOL FOR COMMUNIC-ATION
BLUE-PRINT FOR THE FUTURE
STAFF DEVELOP-MENT

4.4 What Role Does the Life Cycle Guidance Team Play in the Program Design Process?

The Life Cycle Guidance Team (LCGT) often has its origins in the membership of the program design team. It is not unusual for a subgroup of these members (say 2 to 4) to continue on into subsequent phases and form the nucleus of the LCGT. Hence, they provide not only **linkage expertise** with earlier phases, but actually take on some developmental and management functions for the program. The LCGT is augmented by other members who may serve for shorter periods of time amd who often bring some particular expertise or administrative viewpoint appropriate for the particular stage that the program is going through.

Figure 4.2 attempts to portray the functioning of the design team wherein they bring together their own extensive experience, the viewpoints of stakeholders, their knowledge of their organization and its future, and related information (research & evaluation results, other documents) in order to develop the program design. As a result of their efforts, recommendations are made to administration which can involve some executive level decisions concerning the next steps. A commitment of resources may be required, some new policies or collaborations may have to be initiated or the "go-ahead" may be needed for the next steps of development, implementation &/or evaluation.

Figure 4.2 Program Design Procedures for Life Cycle Program Management


FUTURISTIC PERSPECTIVES
ORGANIZATION'S VISION, MISSION & FUNCTIONS
STAKEHOLDER VIEWPOINTS
PRIOR EXPERIENCES
LIFE CYCLE GUIDANCE TEAM'S EXPERTISE
PROGRAM DESIGN
EXECUTIVE DECISION RE NEXT STEPS
POLICIES & COLLABORATIONS
RESOURCES
DEVELOPMENT IMPLEMENTATION EVALUATION

5. The Program Logic Model and Its Components

This chapter describes the development of the program logic model and its components. The model is, as defined in the preceding chapter, a set of causally and sequentially related main events that define the program and its consequences and conform to an "if-then" relationship such that for any event to occur, all those preceding it must have occurred first. The first step deals with the development of the **Matrix of Educational Effects**. Once developed this matrix becomes **the pivotal main event** in the logic model and is the point from which consequent and antecedent events are identified. A generic schematic of these concepts and their interrelationships is given in Figure 5.1. Upon completion of the logic model, the functional and indicator components are identified.

5.1 The Matrix of Educational Effects: A Starting Point

In his hierarchy of a chain of events for extension programs, Bennett (1979) identifies two kinds of "near end" program effects: (1) KASA (knowledge, attitudes, skills, aspirations) changes; and, (2) practice (or behavior) changes. Since Extension regards itself as an agency that offers educational programs it seems reasonable to start by identifying what educational (or KASA and behavior) changes will result from participation in the program-to-be. They are called KASAB's and are used as a starting point in developing the program logic model. They are by no means the only starting point. Smith (1989a) suggests starting with an enumeration of the full set of activities involved in the program; however, this has proven to be extremely time consuming and difficult for the group to do.

The work group is first asked to identify the target audiences or anticipated participant groups for the program. This step may require some discussion or alternatively, may be very easy. Usually more than one target audience is identified and on occasion, an additional audience may be identified as an afterthought once the group has gotten into more details of the process. Once these audiences have been identified a matrix, like that in Figure 5.2, is put on the wall where all may see and the Facilitator asks the group to work their way through the matrix identifying the participant or clientele KASAB changes that will occur by virtue of participation, as exemplified in Figure 5.3.

The KASAB's will require some discussion before the group begins to fill in the matrix and even during the process. The group needs to be reminded of the fact that the KASAB's are not usually something participants would acquire other than through the program. Some discussion points are:

1. Knowledge: I, the participant, am now **aware** of conditions and have **acquired factual information** that I didn't have before the program.

Figure 5.1 Generic Program Logic Model

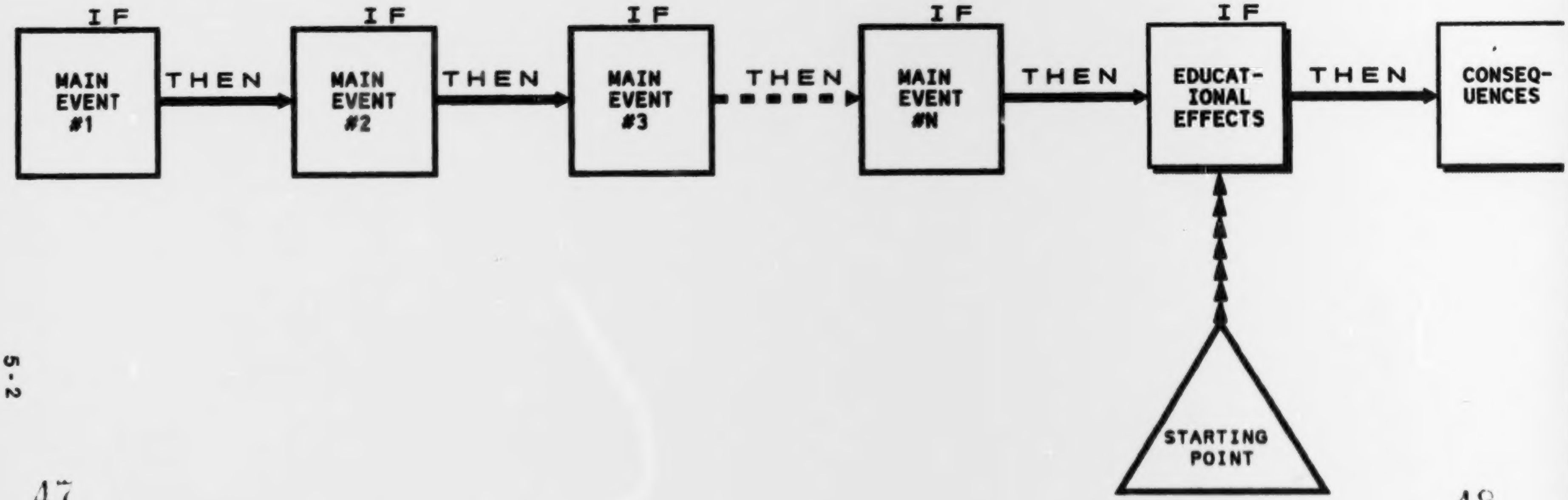

IF
MAIN EVENT #1
THEN
IF
MAIN EVENT #2
THEN
IF
MAIN EVENT #3
THEN
IF
MAIN EVENT #N
THEN
IF
EDUCATIONAL EFFECTS
THEN
CONSEQUENCES
STARTING POINT

Figure 5.2. Worksheet For Completing the Matrix Of Educational Effects

	Target Audiences	
	A	B
KNOWLEDGE		
ATTITUDES		
SKILLS		
ASPIRATIONS		
BEHAVIORS/ PRACTICES		

*KASAB's

Figure 5.3 The Nature of Entries for Completing the Matrix of Educational Effects

Target Audiences

KNOWLEDGE	I, THE PARTICIPANT, AM NOW AWARE OF CONDITIONS AND HAVE ACQUIRED FACTUAL INFORMATION THAT I DIDN'T HAVE BEFORE THE PROGRAM
ATTITUDES	I, THE PARTICIPANT, BELIEVE THAT THE THE CONDITIONS CAN BE CHANGED WHEREAS BEFORE THE PROGRAM I BELIEVED THE OPPOSITE OR HAD NO PARTICULAR BELIEF AT ALL WITH REGARD TO THE TOPIC
SKILLS	I, THE PARTICIPANT, AM NOW ABLE TO DO DO CERTAIN KINDS OF ACTIVITIES AND/OR PERFORM CERTAIN KINDS OF FUNCTIONS THAT I WAS NOT ABLE TO DO BEFORE THE PROGRAM
ASPIRATIONS	I, THE PARTICIPANT, NOW WANT TO CHANGE CERTAIN CONDITIONS RELATED TO THE TOPIC WHEREAS BEFORE THE PROGRAM I HAD NO SUCH DESIRE OR EVEN HAD NEGATIVE FEELINGS ABOUT THE TOPIC
BEHAVIORS/ PRACTICES	I, THE PARTICIPANT (OR FORMER PARTICIPANT) ACTUALLY DO CERTAIN ACTIVITIES OR PERFORM CERTAIN FUNCTIONS THAT I DIDN'T DO BEFORE THE PROGRAM OR PERFORM CERTAIN FUNCTIONS DIFFERENTLY DUE TO THE PROGRAM

*KASAB's

2. Attitudes: I, the participant, **believe** that these conditions can be changed whereas before the program I believed the opposite or had no particular belief at all with regard to the topic(s).

3. Skills: I, the participant, am now **able to do** certain kinds of **activities** and/or perform certain kinds of **functions** that I was not able to do before the program.

4. Aspirations: I, the participant, now **want** to change certain conditions related to the topic whereas before the program I had no such desire or even had negative feelings about the topic.

5. Behaviors/Practices: I, the participant (or former participant) **actually do** certain activities or perform certain **functions** that I didn't do before the program or perform certain functions differently as a result of the program.

As the group begins to work its way through the matrix many entries will be generic in nature; however, the facilitator can probe to determine if there is some specificity to these even though they might be too numerous or complex to write down. The KASAB categories will likely suggest changes or effects that have never occurred to the work group before but which, once suggested, seem worthwhile. There is not any required order in which the matrix must be filled out. They can start with any row, column or cell of the matrix and jump around as they see fit. Usually, they will find it easier to start with a row and work across audiences. Sometimes they start with the **B** row first. The group should be reminded that each cell does not require an entry and, on occasion, an entry isn't even meaningful, as later examples will show. At times, knowledge and skills are inseparable and for such occurrences Ibid can be used to so indicate (e.g., **S**kills Ibid **K**nowledge entry or entries).*

Before this point the group may have considerable discussion concerning whether or not the program is expected to result in **B**(ehavior) change. Almost invariably the group decides that the program does or should result in such change. This is especially so if the group recognizes that "informed decisionmaking" is itself a form of behavior change.** For example, the aspiring entrepreneur who decides as the result of a 2-4 hour short introduction to Home Based Businesses that they will **not** go into business for themselves.

The next question posed to the group is whether or not the **B**(ehavior) change could occur **without** the **KASA** changes occurring **first**. We make this distinction because they could occur simultaneously or, in a coercive program, even in the reverse order. Invariably the group decides that B change is dependent on KASA change occurring first. These then become our first entries in the Program Logic Model.

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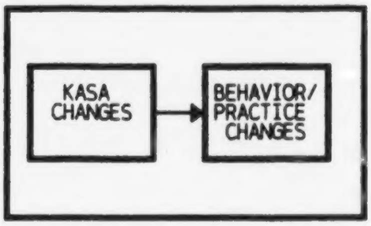
* The matrix can also be used to prioritize the expected levels of effects for the different KASAB's and groups (see Chapter 14 on Special Topics).

** See Carroll & Johnson (1990) for approaches to the study of decisionmaking.

Figure 5.4 Relationship of KASA Change to Behavior/ Practice Change for Each Target Audience's Educational Effects



Illustrative examples of Educational Effects Matrices are given in Tables 5.1 and 5.2.

The first example is from work done in the Commonwealth of the Northern Marianas Islands (CNMI) located just north of Guam. The CNMI received Commonwealth status in the early 1980's and consequently their Extension Service is relatively new. The Extension Service of CNMI wanted to initiate a program that would help build up island agriculture thereby reducing their dependence on imports while at the same time improving dietary intake by encouraging consumers to change their food purchasing and food preparation practices to more nutritious foods (e.g., from eggplant to bell peppers). The work group of about 10 staff members (almost the entire land-grant staff) identified 4 target audiences of growers, traders, consumers and special interest groups as indicated in Table 5.1. The entries in the matrix reflect at a fairly general level, the changes that they believe the program (called High Nutrient Density Products (HNDP)) should try to bring about.

The second example (Table 5.2) is from work done with Iowa State University on its' Retail Trade Program (Hammond, D. et al, 1989). This program had considerable past experience to draw upon and consequently the 6 design team members could readily fit it into the logic model framework. The 2 groups of intended participants are the proprietor & staff and community leaders. The latter are considered important in fostering a climate in which small businesses might succeed.

Table 5.1 Matrix of Educational Effects for the Northern Marianas' Program of Local Production, Marketing & Consumption of High Nutrient Density Products

Target Audiences

	GROWERS	TRADERS	CONSUMERS	SPECIAL INTEREST GROUPS (Policy/Decision-makers)
KNOWLEDGE	Increase knowledge of value & importance of HNDP Understanding pricing & marketing systems	Post-harvest handling (e.g. grading, packing, pricing, storing)	Importance of HNDP to health, value relative to price	Increased awareness of importance of HNDP in the health & well-being of the CNMI populace
ATTITUDES	More favorable to uses of HNDP	Importance of product quality, improved grower/trader relationship/trust	Value of HNDP relative to price Change old attitudes for local HNDP	Willingness to support HNDP program
SKILLS	Increasing production & marketing skills (e.g. IPM, soils, post-harvest technology)	Post-harvest skills	New ways of preparing local HNDP, prolonging storage life Improve menu planning	Skills in program assessment
ASPIRATIONS	Improved income, desire to contribute to community well-being	Improve income, assured source of commodity	Improve diet & family health	Desire to be associated with a program that contributes to community well-being & economic development
BEHAVIORS/ PRACTICES	Increase in acreage of planting of HNDP Adoption of new technologies	Improved post-harvest facilities & practices	Increase consumption of HNDP Adoption of improved food prepartion & storage practices	Policies & decisions that contribute to HNDP program (resources, inter-agency operations)

HNDP= High Nutrient Density Products/Produce; IPM= Integrated Pest Management

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Table 5.2. Matrix of Educational Effects for Iowa's Retail Trade Program

Target Audiences

	PROPRIETORS & THEIR EMPLOYEES	COMMUNITY LEADERS
KNOWLEDGE	Greater knowledge of business management Better understanding of business environment	Better understanding of business environment
ATTITUDES	Greater awareness of public's perception of own business Greater sense of collective nature of community	Changed perception of business community Greater sense of collective nature of community
SKILLS	Improved business and people management skills	Improved skills in cooperative organizational efforts
ASPIRATIONS	Aspire to increase sales Desire to stay in business	Desire for more vigorous business sector Desire for expanded tax base
BEHAVIORS/ PRACTICES	Change in actual business practices Change in dealing with customer &/or employee relations	Increased support for business community Increased volunteer &/or civic organizational activities

The Educational Effects Matrix (E) usually forms the first main event in the program logic model. If one portrays a very simple "if then" sequence of antecedents (A) and consequences (C) of E by arrows, as follows:

A - - - - > E - - - - > C

then one can take as the next step either the identification of the consequences (C) of E or its antecedents (A). Since some of A includes the program and its development, it is usually easier to start with C although there may be a good bit of jumping back and forth between the two as they are actually identified.

5.2 The Consequences of Educational Effects

There can be any number of **direct** consequences of B(ehavior) or practice change. Usually these fall into two main categories: (1) consequences that accrue to the program participant or alumnus, and, (2) consequences that accrue to larger entities with which they are affiliated (e.g., family, firm, community, etc.) Using the same worksheet approach we try to identify (1) first and then (2). There may be more then one main event for each and, as some of the examples will show the chain of events may get fairly long--a result which the group may want to revisit and simplify at a later time. The logic model begins to take on the following form:

$$E \dashrightarrow C_1 \dashrightarrow C_2 \dashrightarrow C_3$$

wherein those C's closer to E are of type (1) and those further away are of type (2). An ending point may be something that resembles the concept called "Improved Quality of Life." Somewhere in this part of the exercise members of the group may express some uneasiness about these remote events being associated with what they as program providers are trying to claim as their impact. They need to be assured that such concerns will be dealt with in a later section of the modeling exercise where they will deal with such concepts as barriers, barrier reductions and intervening events.

Examples of both consequences and antecedents are given in the next section.

5.3 The Antecedents of Educational Effects: Introduction to the Program

One can readily identify at least three main events which would precede the Educational Effects (E) of a program. They are: (1) the identification of a need, issue or problem which may have resulted from a needs assessment or issue identification process; (2) the development of a program to address them; and, (3) the implementation of the program (Boone, 1985).

The workgroup usually starts with step (1) since they feel such a step should be taken even though that may not be the way they initiated other programs. This first main event is usually identified fairly readily.* However, in moving to the next main event the group will usually feel the need to include some events related to Extension identifying its role, reviewing available resources, etc. Such events can be either sequential or concomitant (viz., nearly simultaneous events) and should of course, conform to the "if-then" sequencing. A "rule of thumb" is to try to keep the models as simple as possible and conforming to the linear format since the Expanded Logic Model promises to be even more complex anyhow.

There is much room for stylistic preference in how one proceeds to the next set of events. There are no apparent rules to follow as of this writing. The group may want a series of event boxes some of which run in parallel in order to reflect the complexities involved. Usually the group will settle for a much simpler model than the Facilitator is capable of drawing.

Finally, prior to the "Provide Program" event the group may want to highlight intermediate events to which they attach some importance. Examples of these may be Recruiting and Training Staff and/or Volunteers, Implementing a Promotional Plan, Initiating a Network, Establishing a Research Linkage, etc. See Figure 5.5 for a generic example.

A procedural note is with mentioning here. With most groups the program logic model is completed before work is started on activities and indicators. With other groups they are developed as each main event is identified. However, if it is the latter type of group they may get on a "roll" wherein events in the logic model seem to start falling in place very rapidly. In such a case it is often worthwhile to postpone the identification of activities/indicators until the events get "roughed in" and then cycle back to do them.

On the following pages examples are given of completed program logic models.

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* Some groups may want to precede this event with statements, boxes, etc. containing the organization's mission, vision, functions, goals, objectives, etc.

Figure 5.5 Generic Program Logic Model Depicting Intermediate Events

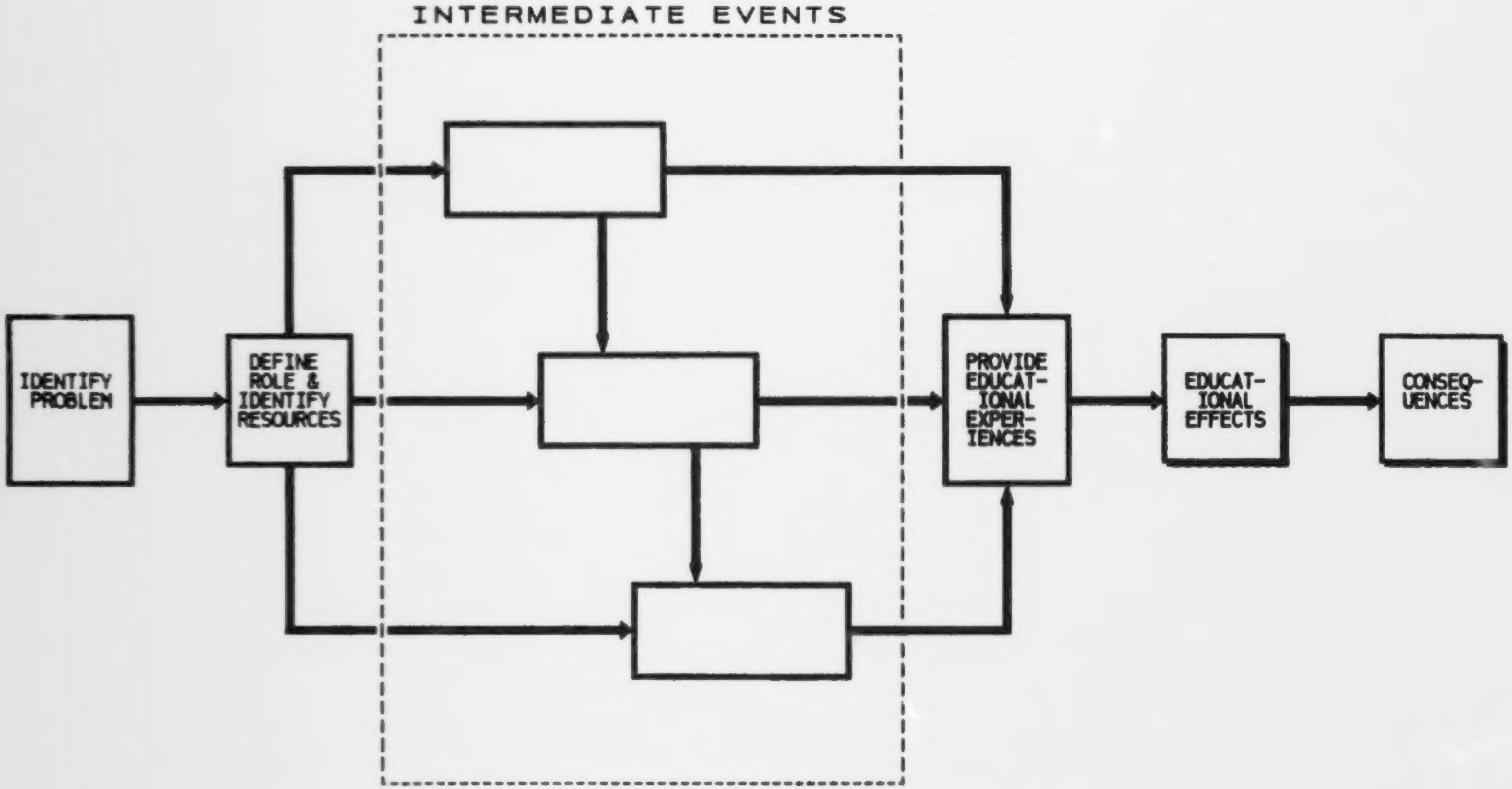

INTERMEDIATE EVENTS
IDENTIFY PROBLEM
DEFINE ROLE & IDENTIFY RESOURCES
PROVIDE EDUCATIONAL EXPERIENCES
EDUCATIONAL EFFECTS
CONSEQUENCES

Figure 5.6 shows the program logic model for the HNDP program in the Northern Marianas. This is a program that is very simple in its antecedents and very complex and rich in its consequences. It serves to illustrate a very important concept--that of **mutual clientele effects**. This is the case in which the educational effects achieved with one set of clientele have effects on other clientele of the program as well. At times this is intentional, as in the case of special interest groups such as elected officials (SIG's) adopting a position or viewpoint that is supportive of changes by other groups in the community (if not intentional, it is called a spin-off). These changes can occur **concomitantly**, **reciprocally** or **sequentially**. They can be represented by a single arrow between 2 events, **concomitant** if they occur nearly simultaneously and **sequentially** if they are separated in time. A double arrow (or arrows) is used to show **reciprocal effects** for 2 events that are (or are nearly) concomitant.

The program logic model for Iowa's Retail Trade Program is given in Figure 5.7. In this program as well, there are some mutual clientele effects wherein small businesses are worked with to improve their practices while community leaders are worked with to improve the community conditions in which the businesses must operate.

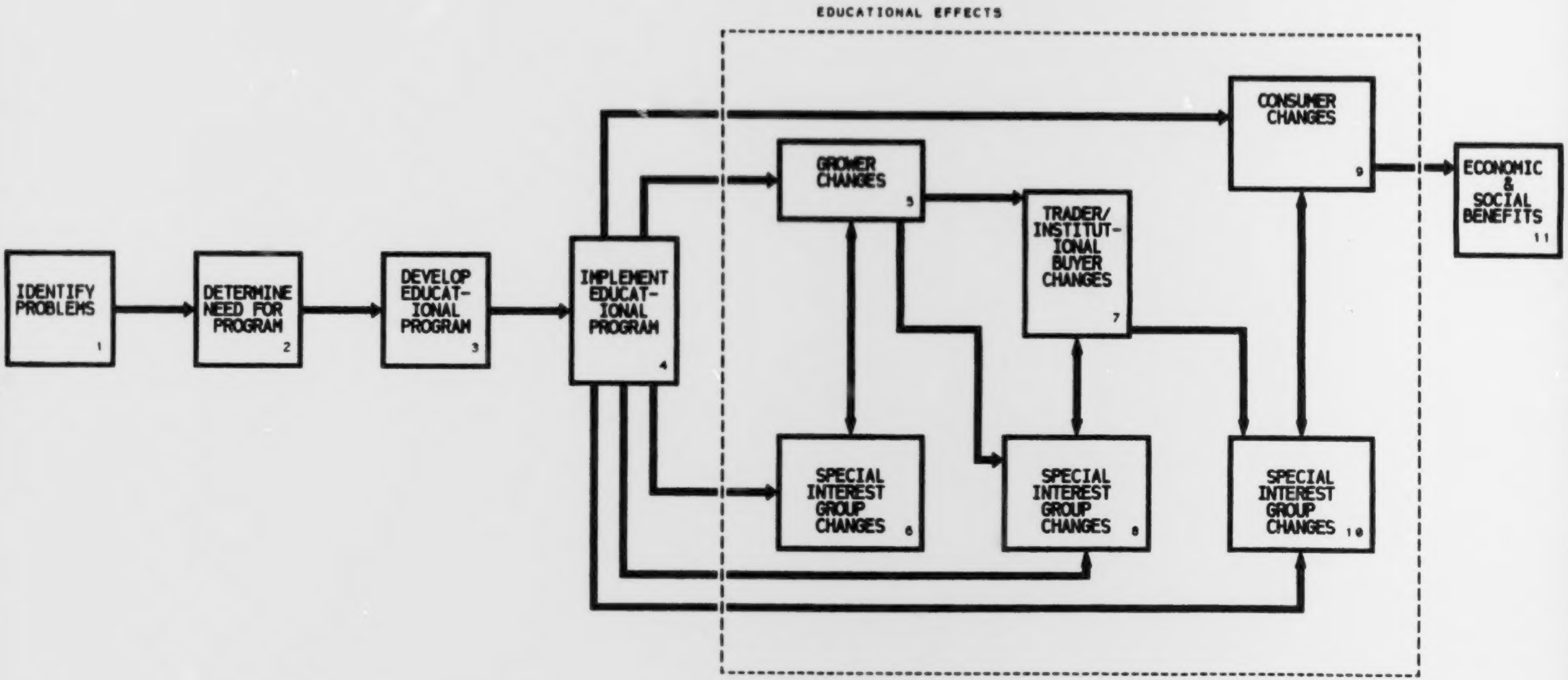
5.4 The Program Logic Model Functional and Indicator Components

Once the main events of the logic model have been identified the group can proceed with the identification of each event's supporting activities and their indicators of accomplishment. The supporting activities are part of the functional component. The other part is the resources. The two are kept separate because the former serve as a basis for specifying or estimating the needed resources. The indicators are specified only for the supporting activities since they serve as a source of evidence that the activity has occurred or is occurring. It is also important to recall that indicators occur **throughout** the model. In the antecedent events (A) they relate to the occurrence of activities but in the effects (E) and consequences (C) they relate to the occurrence of E and C. A generic example of a program logic model with functional and indicator components is given in Figure 5.8.

Often the group specifies the indicators when they complete each main event's activities or consequences. The worksheet formats used for each main event are given in Figures 5.9 and 5.10. The facilitator merely puts a worksheet on the wall with the appropriate labels so that the group can start identifying activities and indicators. Moving back and forth from one main event to earlier ones to specify additional activities may occur fairly frequently.

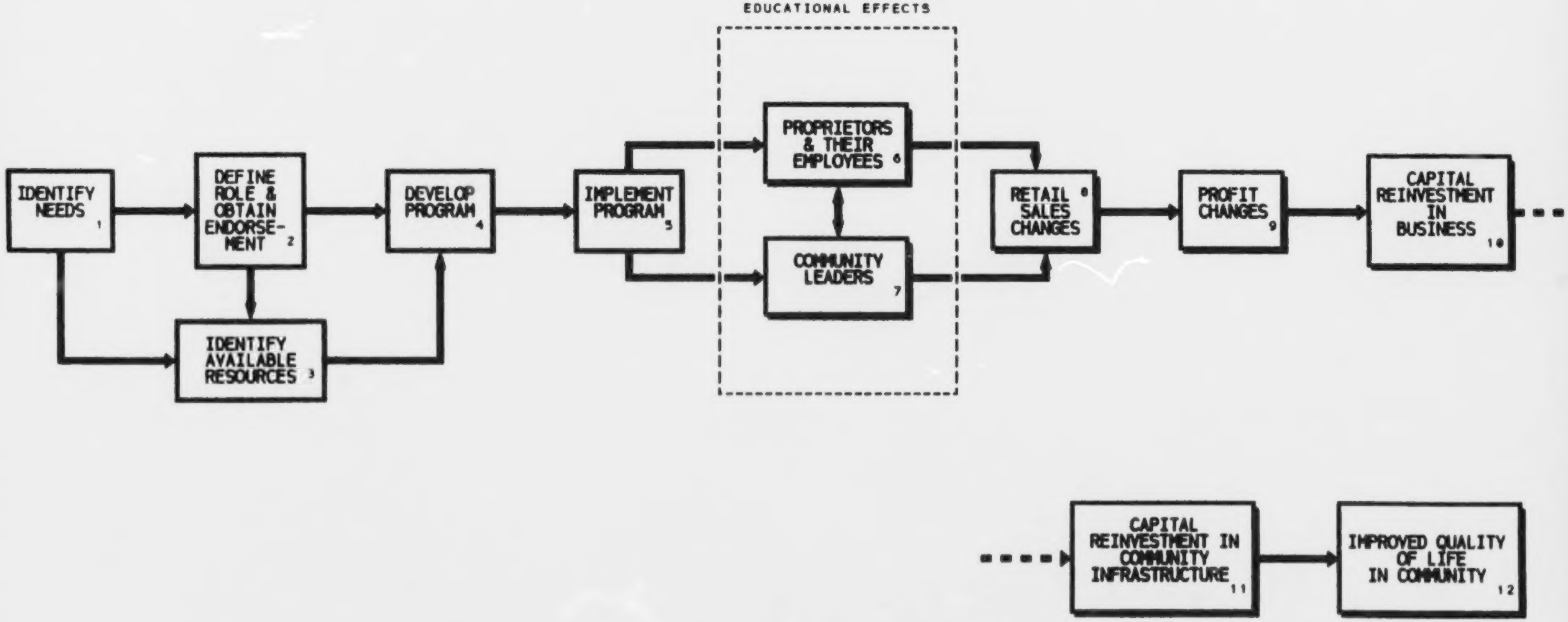
Resources are included as part of the functional component. However, their estimation by the group may be done **anytime after the activities have been completed**. Some groups may want to wait until they complete all other aspects of the modeling before they estimate the resources required. There may be some wisdom to this since other aspects of the modeling, especially barriers, barrier reductions and spin-offs, may suggest still other activities that could or should be done.

Figure 5.6 Logic Model for the High Nutrient Density Products Program of the Northern Marianas


EDUCATIONAL EFFECTS
IDENTIFY PROBLEMS 1
DETERMINE NEED FOR PROGRAM 2
DEVELOP EDUCATIONAL PROGRAM 3
IMPLEMENT EDUCATIONAL PROGRAM 4
GROWER CHANGES 5
SPECIAL INTEREST GROUP CHANGES 6
TRADER/ INSTITUTIONAL BUYER CHANGES 7
SPECIAL INTEREST GROUP CHANGES 8
CONSUMER CHANGES 9
SPECIAL INTEREST GROUP CHANGES 10
ECONOMIC & SOCIAL BENEFITS 11

Adapted from James, F.P. (1991) Local Foods Make Your Body Healthy: Promoting High Nutrient Density Produce in the CNMI. A Report on the Program Development Plan for Land Grant Extension and Research Impacts in Improving Local Agriculture and Health. Northern Marianas College, School of Agriculture and Life Science.

Figure 5.7 Logic Model for Iowa's Retail Trade Program


EDUCATIONAL EFFECTS
IDENTIFY NEEDS 1
DEFINE ROLE & OBTAIN ENDORSEMENT 2
IDENTIFY AVAILABLE RESOURCES 3
DEVELOP PROGRAM 4
IMPLEMENT PROGRAM 5
PROPRIETORS & THEIR EMPLOYEES 6
COMMUNITY LEADERS 7
RETAIL SALES CHANGES 8
PROFIT CHANGES 9
CAPITAL REINVESTMENT IN BUSINESS 10
CAPITAL REINVESTMENT IN COMMUNITY INFRASTRUCTURE 11
IMPROVED QUALITY OF LIFE IN COMMUNITY 12

Adapted from Hammond,D. et al, (1989). **Evaluability Assessment of Retail Trade Programs.** Ames, IA.: Iowa State University Extension Service.

Figure 5.8 Generic Program Logic Model With Functional and Indicator Components

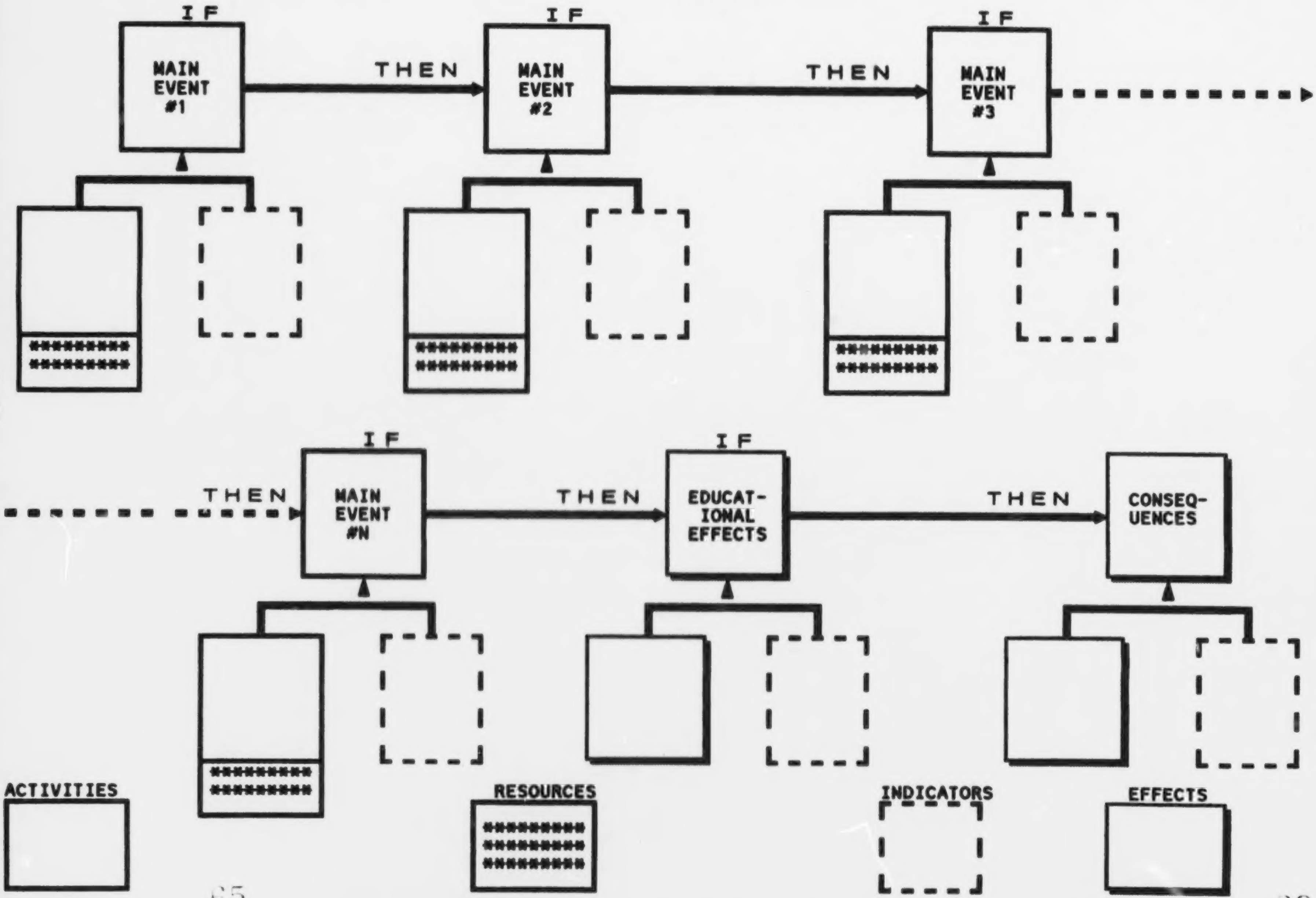

IF
MAIN EVENT #1
THEN
IF
MAIN EVENT #2
THEN
IF
MAIN EVENT #3
THEN
IF
MAIN EVENT #N
THEN
IF
EDUCATIONAL EFFECTS
THEN
CONSEQUENCES
ACTIVITIES
RESOURCES
INDICATORS
EFFECTS

Figure 5.9 Worksheet for Determining Main Event Activities & Indicators

MAIN
EVENT
#k

Activities*	Indicators

*Changes to Effects or Consequences for later Main Events

Figure 5.10 Worksheet for Determining Resources to Support Activities

MAIN
EVENT
#k

Resource Categories	Estimated Full Time Equivalents	Estimated $ Equivalents

The ease or difficulty with which resources can be estimated by the group will depend upon their prior experience in carrying out similar types of programs.* A typical worksheet for a set of activities might use the following categories in the worksheet format in Figure 5.10, and appear as follows:

PROGRAM XYZ RESOURCES
SAMPLE CATEGORIES

STAFF CATEGORIES	FTE's (Estimated)	$(Estimated)
Professional Staff Time		
County		
State		
Specialist		
Para-professional		
Volunteer		
Secretarial Support		
TRAVEL		
EQUIPMENT/MATERIALS		
Acquire/Purchase		
Develop/Print		
OVERHEAD		

Once the appropriate resource categories have been identified, estimating the costs may not be difficult even though much discussion may be involved. Start-up, developmental and operational costs must all be estimated and usually there is a place for each in the logic model.**

---

* An exception is for modeling multiple programs simultaneously (see Chapter 14).

** At times the group may want to postpone until another time the estimation of resources since they may not know what, if any, will be available (e.g., the number of locales in which the program will be carried out).

Illustrative examples of functional and indicator components are given in Tables 5.3 and 5.4.

The indicators for the educational effects (E) of the program and for its consequences (C) tend to differ from those for the antecedents (A). This is so because the indicators for A tend to be administrative documents while those for E and C may require some information collection that involves more than just the regular programmatic efforts. As a consequence they may contain both methods (e.g., survey) and sources (e.g., agents, volunteers) rather than just sources. Table 5.5 gives the educational effects indicators for Iowa's Retail Trade program while Table 5.6 gives the list of consequences and indicators for Event 11 in the HNDP program logic model, Economic & Social Benefits.

Table 5.3 Examples of Activities & Indicators for the Main Events on Development & Implementation of the HNDP Program

DEVELOP EDUCATIONAL PROGRAM 3

Activities	Indicators
GROWERS	
Group meetings re common problems	Monthly reports
Develop production technology guides	Leaflets
Collect data on existing practices	Reports
Assess performance of new varieties & practices & plan demonstration practices	Germplasm collections, field tryouts, action plan
Publish forecasting data	Reports
Plan for media coverage of HNDP program events	Public information office
Joint planning of Agriculture & Food Fairs based on Extension experience in prior years	Minutes of meetings
Joint planning of workshops & develop materials	Memorandum of Understanding, secretary's files
TRADERS/INSTITUTIONAL BUYERS	
Plan workshops & develop materials re: post-harvest handling market conditions	Benchmark information
CONSUMERS	
Develop curriculum on HNDP & plan workshops	On file
Add lessons to EFNEP on HNDP	On file
Develop flyers & recipes re HNDP	Pamphlets on file
Plan demonstration projects re HNDP preparation & preservation	Materials on file
Joint planning of Food Fairs	Minutes of meetings
SPECIAL INTEREST GROUPS	
Plan conferences re value & importance of HNDP	Plan in file
Plan & develop communication campaign (e.g.newsletters, flyers, brochures re HNDP)	File copies
Plan field day & develop materials	Plan & materials in file
----------------	------------------------
Plan HNDP evaluation	Plan in file

IMPLEMENT EDUCATIONAL PROGRAM 4

Activities	Indicators
GROWERS	
Consult on a one-to-one or group basis re: Rehabilitation of existing farms for HNDP Shifting to HNDP crops Establish demonstration Land Grant projects Advise on market opportunities Co-sponsor Agriculture & Food Fairs	Monthly reports
TRADERS/INSTITUTIONAL BUYERS	
Publicize, recruit participants, conduct workshops	Monthly reports
CONSUMERS	
Conduct workshops	Monthly reports
Publish & disseminate flyers	Copies on file
Conduct demonstration projects	Monthly reports
Co-sponsor Food Fairs	Monthly reports, scrapbooks
SPECIAL INTEREST GROUPS	
Conduct conferences, communication campaign & field day	Monthly reports, materials on file
----------------------	
Implement evaluation plan & revise program as appropriate	Report on file

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Table 5.4 Examples of Activities & Indicators for the Main Events of Development & Implementation of the Program on Retail Trade

DEVELOP PROGRAM 4

Activities	Indicators
Determine target audiences & desired outcomes or results	Plan of Work
Acquire or develop subject matter materials &/or expertise	Files
Tailor materials/expertise to meet special needs of target audiences (e.g. level of comprehension, time availability, etc.)	Teaching outline & materials
Develop model recruitment plan (e.g. package, sample letter & news release)	Plan on file
Conduct pilot tests & revise accordingly	Periodic reports, evidence of revisions, agendas
Develop evaluation plan	Plan on file
Conduct in-service taining for area specialists & county staff	Agenda, schedule & materials on file

IMPLEMENT PROGRAM 5

Activities	Indicators
Obtain endorsement &/or co-sponsorship of program from business community	Recruitmment materials
Make facilitative arrangements (time, speaker, place, equipment)	Recruitment materials
Audience recruitment	
media releases	Copies on file
mailings	Copies on file
newsletter	Copies on file
personal contacts	Daily log
group presentations	Daily log
Conduct local program	Attendance list, news clippings & administrative reports
Evaluate local program	Evaluation instrument & summary

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Table 5.5 Examples of Educational Effects Indicators for the Program on Retail Trade

Target Audiences

	PROPRIETORS & THEIR EMPLOYEES	COMMUNITY LEADERS
KNOWLEDGE	Survey Agent Observation	Survey Agent Observation
ATTITUDES	Survey Agent Observation Unsolicited Comments	Survey Agent Observation Unsolicited Comments
SKILLS	Survey Agent Observation	Survey Agent Observation
ASPIRATIONS	Survey Agent Observation Unsolicited Comments	Survey Agent Observation Unsolicited Comments
BEHAVIORS/ PRACTICES	Survey Agent Observation	Survey Agent Observation

---

Table 5.6 Examples of Indicators for the Consequences of the HNDP Program

ECONOMIC
&
SOCIAL
BENEFITS
11

Consequences	Indicators
Longer life span	Vital statistics
Reduced incidence of: hypertension, diabetes, heart disease, cancer, gout	Vital statistics
Improved dietary practices	Survey reports & records
More viable agriculturally based enterprises	Commerce & Labor statistics
Improved grower income	Survey, sales reports
Increased awareness & understanding of agriculture in island economy	Executive orders, bills, laws
Better institutionalized support for Land Grant programs	Laws & appropriations

Table 5.7 Estimated Professional Staff Resources for the Program on Retail Trade

Estimate of Staff Resources Expended:

1 FTE state staff
1 FTE area staff
1 FTE county staff

3 Total Expended

Estimate of Staff Resource Usage By Program Logic Model Events:	
.25 FTE	Identification of needs
.15 FTE	Define roles
.10 FTE	Identification of resources
1.25 FTE	Develop program
1.25 FTE	Implement program
3.00 FTE	Total expended

Resources are the very last item addressed, usually after all other aspects of the modeling have been completed. However, they are introduced here as part of the activity identification process. The resource estimates given in Table 5.7 serve to illustrate the way staff resources may be involved in the different main events. With most other programs however, the resources and categories of resources involved are far more numerous and complex than these.

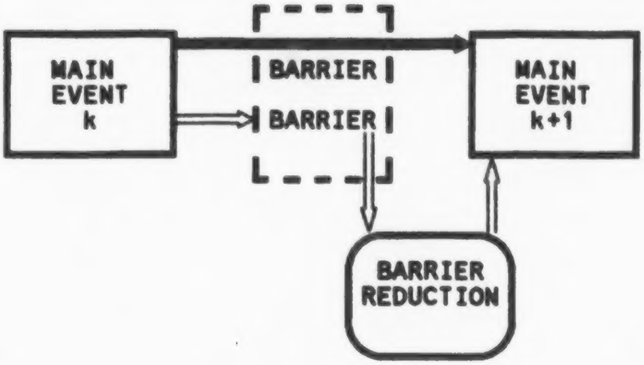
5.5 The Expanded Program Logic Model

Completion of the logic model and its components is an important accomplishment for the group. At this point they have a good idea of what they are about so that the expansion of the logic model to include barriers, barrier reductions and intervening events is a fairly easy transition.

Barriers are "things that can go wrong or get in the way" in moving from one main event to another in the logic model. There may be things that staff can do to surmount these barriers--these things they can do are called **barrier reductions**. It's kind of like a video game in that if one hits the barrier then one goes to barrier reduction and moves through barrier reduction to the next main event. Schematically it is portrayed in Figure 5.11. The top arrows depict straight forward movement from event k to k+1. The lower arrow depicts hitting the barrier(s), going to barrier reduction(s) and then on to event k+1. Of course, if the barrier is not surmountable then one is "out of business."

To do these one simply needs to number the main events in the logic model and then use the worksheet with the main events as a heading, as illustrated in Figure 5.11. This format is just like that for the development of the Functional and Indicator Components. To identify the barriers and their reductions the workgroup will want to be able to refer to

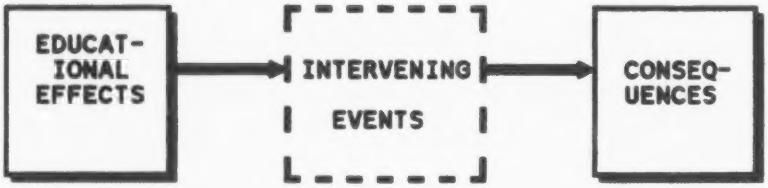
Figure 5.11 Worksheet for Determining Barriers & Barrier Reductions


MAIN EVENT k
BARRIER
BARRIER
MAIN EVENT k+1
BARRIER REDUCTION

Barriers

Barrier Reductions

Figure 5.12 Worksheet for Determining Intervening Events


EDUCATIONAL EFFECTS
INTERVENING EVENTS
CONSEQUENCES

Intervening Events

the **activities** listed **in the two events** under consideration--especially the event they are trying to move **from**. The group works their way through the model considering each pair-wise combination of sequential events in turn until the Educational Effects (KASA and B) have been completed. In doing these it is not unusual for the group to discover that there are some additional activities that they need to build into the Functional Component (thereby also amending the Indicator Component).

When the Behavior/Practice Change event has been completed the nomenclature changes because this is usually regarded as an ending point for what the program staff can consider themselves responsible for or can claim responsibility for. It is not that the program does not want to affect later events but rather that other influences may come in to play that perturb their occurrence (or decrease their likelihood of occurrence), and the program staff has little or no influence over them. These are call **intervening events** and they are depicted schematically in Figure 5.12. The same worksheet format is used. However, it is often the case that indicators are not identified and sometimes there is only one intervening event.

A generic example of an expanded logic model is given in Figure 5.13 while actual examples of barriers and barrier reductions are given in Tables 5.8 and 5.9. Examples of intervening events are given in Table 5.10.

Figure 5.13 Generic Expanded Program Logic Model With Barriers, Barrier Reductions and Intervening Events

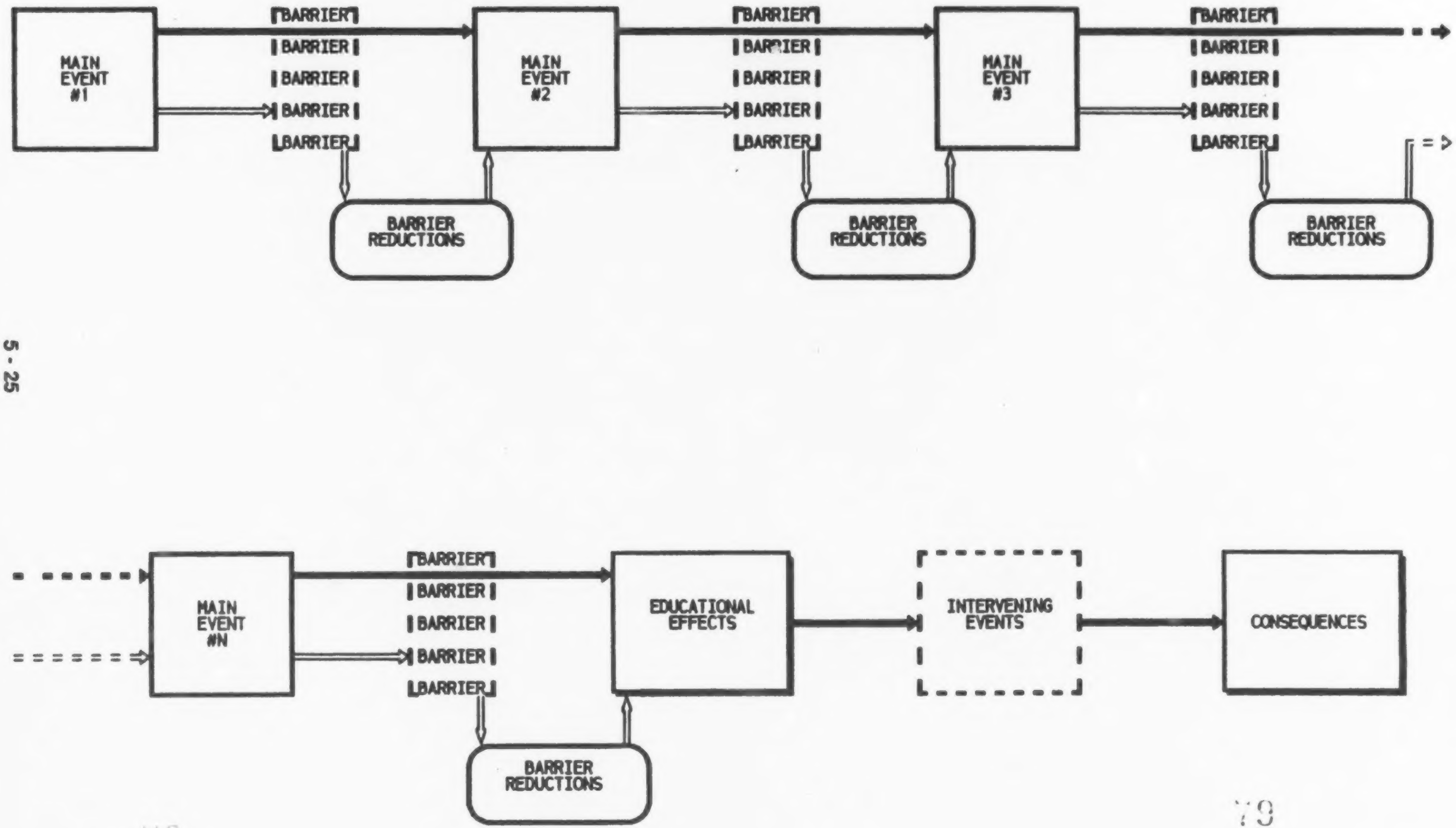
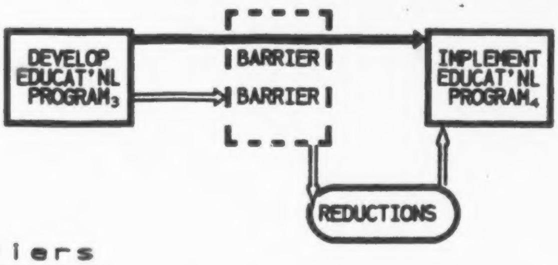
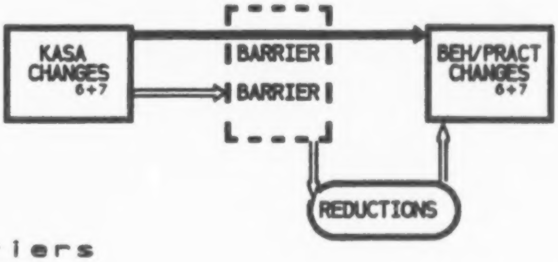

MAIN EVENT #1
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
MAIN EVENT #2
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
MAIN EVENT #3
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
MAIN EVENT #N
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
EDUCATIONAL EFFECTS
INTERVENING EVENTS
CONSEQUENCES

Table 5.8 Examples of Barriers & Barrier Reductions for the HNDP Program


DEVELOP EDUCAT'NL PROGRAM$_3$
BARRIER
BARRIER
IMPLEMENT EDUCAT'NL PROGRAM$_4$
REDUCTIONS

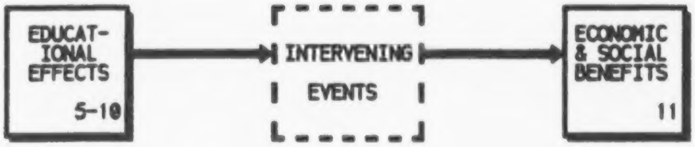
Barriers	Barrier Reductions
Lack of adequate staff time	Set calendar far enough in advance so staff can commit their time
Conflict with other ongoing staff activities	Communicate calendar to other agencies & to administration
Lack of facilities/materials/resource people	Seek adequate funding, promote staff development

Table 5.9 Examples of Barriers & Barrier Reductions for the Retail Trade Program


KASA CHANGES 6+7
BARRIER
BARRIER
BEH/PRACT CHANGES 6+7
REDUCTIONS

Barriers	Barrier Reductions
Lack of financial resources	Educational or financial alternatives
Lack of motivation	Use case studies, emphasize small successes, ascertain personal benefits
Fear of risk-taking	Case studies help evaluate risk/benefit realistically
Perceived risks exceed benefits	Case studies help evaluate risk/benefit realistically
Insufficient priority	Use peer pressure (band-wagon effect)
Lack of desire to change	Case studies reinforce benefits of change
Negative peer pressure	Obtain endorsements, use case studies, mobilize positive forces
It won't work here--we are different	Case studies, peer community visitations, establish networks, involve negative sayers in decision, change community perceptio
Tradition	Change community perception

Table 5.10 Examples of Intervening Events for the HNDP Program



EDUCATIONAL EFFECTS 5-10

INTERVENING EVENTS

ECONOMIC & SOCIAL BENEFITS 11

Intervening Events

Natural disasters (e.g typhoons, flooding, drought, epidemics, climatic changes)

Widespread violence

Economic recession(s)

Artificial disasters (e.g. nuclear fallout)

Economic boom leads to negative disruptions (e.g. farmers leave farming)

5.6 Identifying Spinoffs

The final modeling exercise is one of identifying **spinoffs**. These are things that "just happen" because the program is structured and implemented in a particular way. These "happenings" may be good or bad, beautiful or ugly, known or unanticipated--they are unplanned occurrences that the group can identify.* For example, we know that in carrying out the 4-H Program, Agents and Volunteers serve as role models for youth; that in carrying out a program with volunteers they experience "psychic income" as well as time management problems; and, that para-professionals may go on to more education, better paying jobs or leadership positions in the community by virtue of their involvement in a program. We portray these schematically as in Figure 5.14.

The worksheet format for these involves doing them all together in one matrix format as follows with a check mark or asterisk used to indicate which spin-offs pertain to which events as shown in Figure 5.15. Indicators are not always identified for spin-offs. Sometimes they are self-evident; usually time begins to get short and the group decides to move on to other tasks. Spinoffs usually reflect "growth"experiences that accrue to the organization, staff or participants by virtue of their association with the program.** The work-group usually finds them enjoyable and easy to do.[A comprehensive list of spinoffs is given in Chapter 9.]

5.7 Modeling Multiple Clientele Effects

For the Program Logic Models used as examples in this chapter (Figures 5.6 & 5.7) we have noted the occurrence of different categories of clientele having an influence on other categories of clientele where this is a planned occurrence. As illustrated in Figure 5.16 these influences can be **concomitant** - occurring at about the same time; **sequential** - one must occur before the other; or, **reciprocal** - the categories have effects on each other at about the same time. Figure 5.17 gives an example of a Program Logic Model which was developed for the Louisiana 4-H Youth Development Program (Richard,R. & E. Johnson, 1992) in which these multiple clientele effects are richly illustrated.

5.8 Summary of the Steps Involved in the Modeling Process

Figure 5.18 attempts to summarize the sequence of steps involved in the modeling process. The steps involving the specification of the educational effects indicators is listed separately because they are usually specified at the beginning of the second 2 day session, thereby serving as a review of what was done earlier. The final step involves estimating resources. It is connected by a dashed line to indicate that such estimation may be delayed until some administrative decisions have been made about resource allocations or policy matters.

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* See Sieber (1981) for a very thoughtful discussion of the unanticipated consequences of purposive action.

** In a follow-up of participants subsequent to their work group experiences, it was found that they had developed a better understanding of the evaluation process & its use in planning & conducting educational programs (Johnson & Richard ,1993)

Figure 5.14 Generic Program Logic Model Depicting Spin-offs

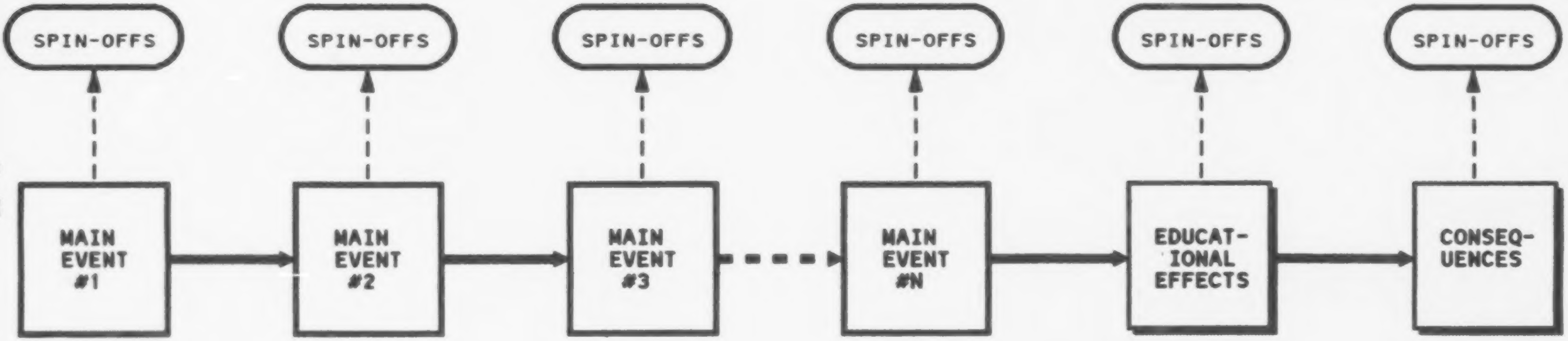
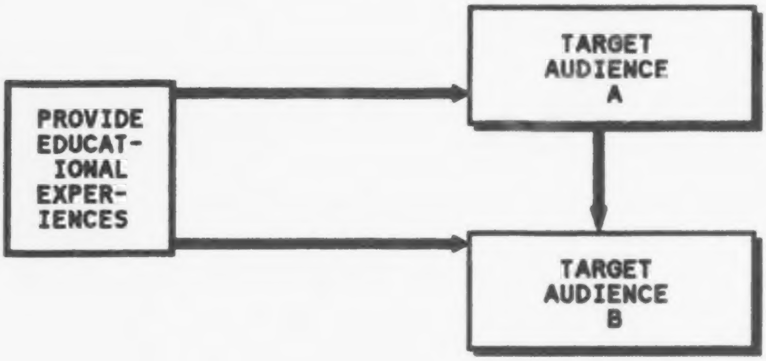

SPIN-OFFS
SPIN-OFFS
SPIN-OFFS
SPIN-OFFS
SPIN-OFFS
SPIN-OFFS
MAIN EVENT #1
MAIN EVENT #2
MAIN EVENT #3
MAIN EVENT #N
EDUCATIONAL EFFECTS
CONSEQUENCES

Figure 5.15 Worksheet for Determining Spin-offs for Each Main Event

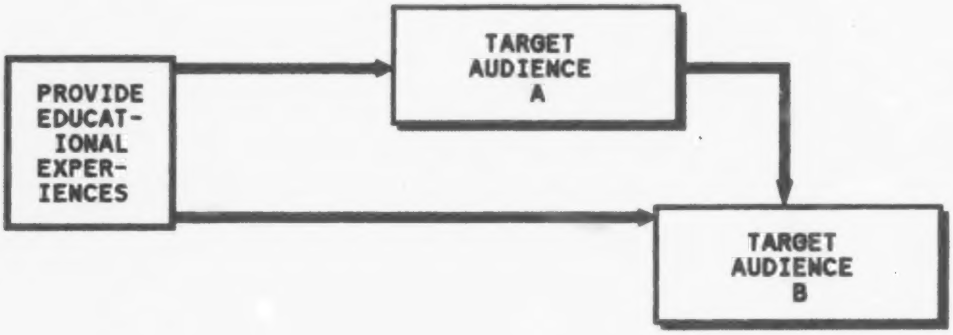
Spin-offs	Main Events 1. XXXXX	2. XXXXX	3. XXXXX	4. XXXXX	5. XXXXX	6. XXXXX	7. XXXXX	8. XXXXX	----------	N. XXXXX
1. XXXXXXXXXXXXXXX	*	*								
2. XXXXXXXXXXXXXXX			*	*						
3. XXXXXXXXXXXXXXX			*		*					*
4. XXXXXXXXXXXXXXX	*									*
5. XXXXXXXXXXXXXXX	*		*							
6. XXXXXXXXXXXXXXX		*		*						
7. XXXXXXXXXXXXXXX					*	*	*			
8. XXXXXXXXXXXXXXX								*		
9. XXXXXXXXXXXXXXX		*		*			*			
n. XXXXXXXXXXXXXXX			*			*				*

Figure 5.16 Causal Relationships Among Target Audiences

CONCOMITANT


PROVIDE EDUCAT-IONAL EXPER-IENCES
TARGET AUDIENCE A
TARGET AUDIENCE B

SEQUENTIAL


PROVIDE EDUCAT-IONAL EXPER-IENCES
TARGET AUDIENCE A
TARGET AUDIENCE B

RECIPROCAL

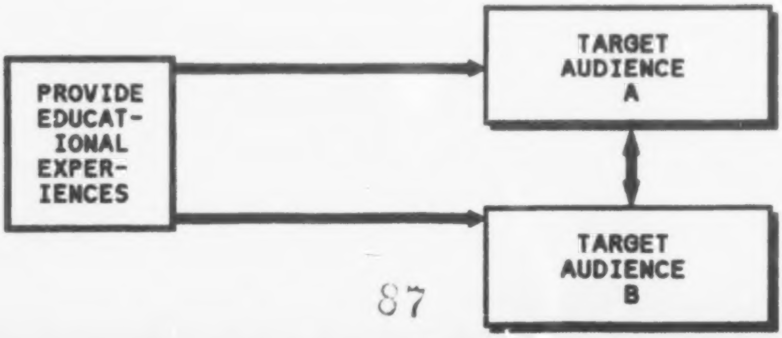

PROVIDE EDUCAT-IONAL EXPER-IENCES
TARGET AUDIENCE A
TARGET AUDIENCE B

Figure 5.17 Louisiana 4-H Youth Development Program Logic Model

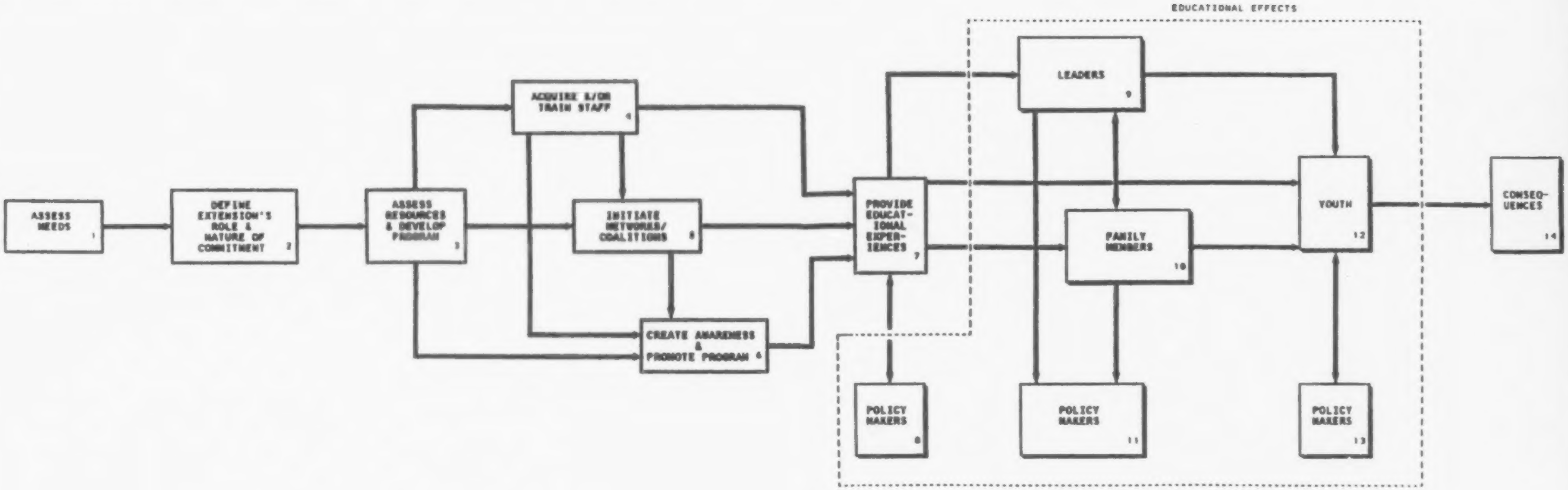

ASSESS NEEDS 1
DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT 2
ASSESS RESOURCES & DEVELOP PROGRAM 3
ACQUIRE &/OR TRAIN STAFF 4
INITIATE NETWORKS/ COALITIONS 5
CREATE AWARENESS & PROMOTE PROGRAM 6
PROVIDE EDUCATIONAL EXPERIENCES 7
POLICY MAKERS 8
EDUCATIONAL EFFECTS
LEADERS 9
FAMILY MEMBERS 10
POLICY MAKERS 11
YOUTH 12
POLICY MAKERS 13
CONSEQUENCES 14

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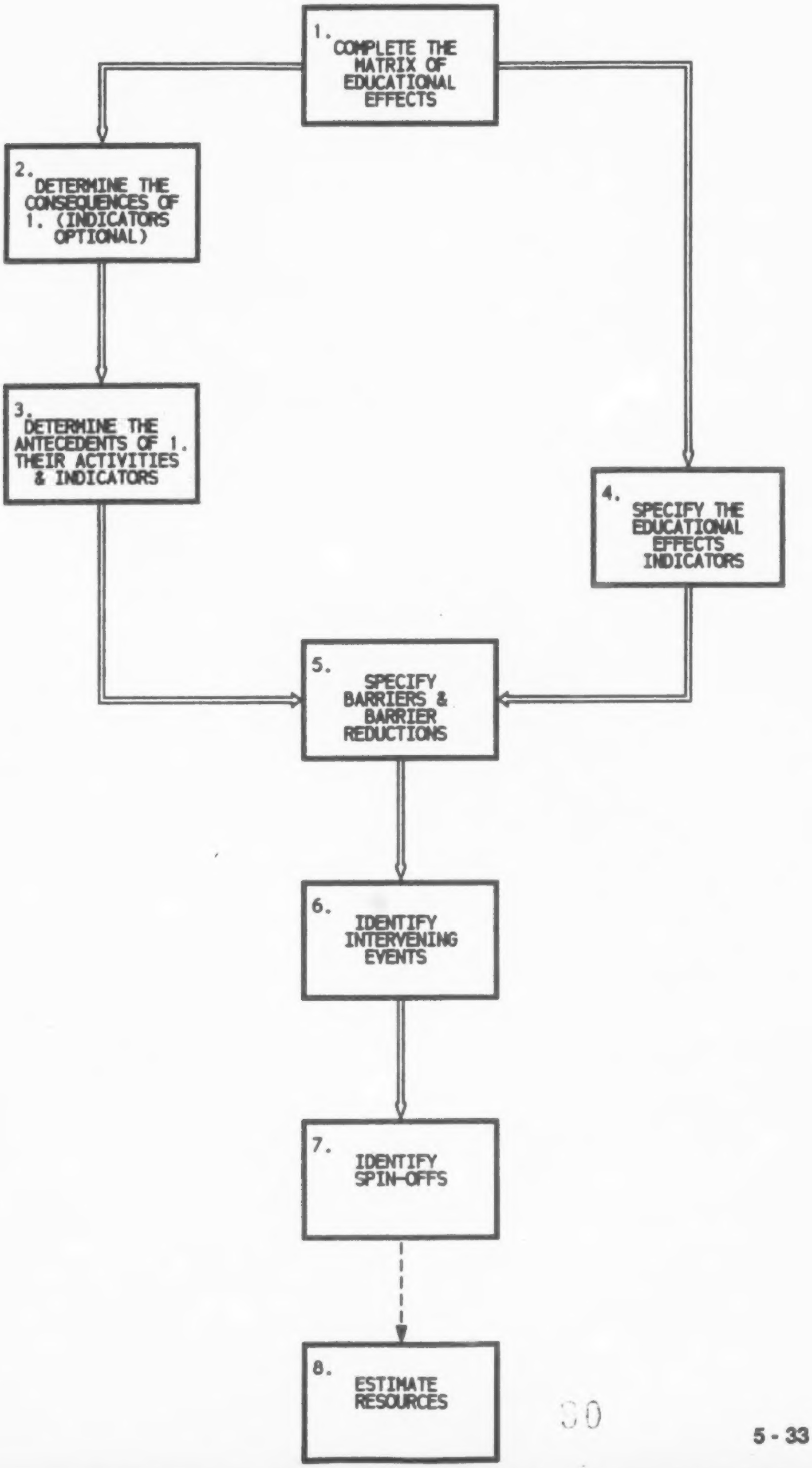
Figure 5.18 Summary of the Sequence of Steps Involved in the Program Modeling Process


1. COMPLETE THE MATRIX OF EDUCATIONAL EFFECTS
2. DETERMINE THE CONSEQUENCES OF 1. (INDICATORS OPTIONAL)
3. DETERMINE THE ANTECEDENTS OF 1. THEIR ACTIVITIES & INDICATORS
4. SPECIFY THE EDUCATIONAL EFFECTS INDICATORS
5. SPECIFY BARRIERS & BARRIER REDUCTIONS
6. IDENTIFY INTERVENING EVENTS
7. IDENTIFY SPIN-OFFS
8. ESTIMATE RESOURCES

5.9 Judging Plausibility

All program design and development efforts are intended to make programs more impactful once they have been delivered (viz., increase the likelihood that they achieve their intended goals and objectives). Short of demonstrated impacts (e.g., practice/behavior change alone or in combination with its consequences) as determined by evaluation results, one must rely on the concept of plausibility. Plausibility is a **judgment** about the likelihood that a program, either proposed or in different stages of its evolution (development, implementation, maintenance), will achieve its intended goals and objectives. All of the efforts devoted to modeling and stakeholders are intended to enhance the plausibility of a program. This plausibility judgment can be made by one or more experts or by stakeholders to a program. It is a judgment made many times by busy administrators using implicit criteria. In program design and development we attempt to explicitly identify a set of criteria to be used in making such judgments.

Smith (1989a, p. 6) defines plausibility as "a judgment about the extent to which necessary and sufficient conditions exist for a program to succeed, i.e., are activities of the right type and amount to bring about the desired change?" and goes on to specify just what these conditions should be (pp. 115-123). In the following discussion we have adapted and expanded upon these conditions so as to facilitate their use for programs in their various stages of evolution.

5.9.1 Plausibility Criteria

Smith (1989a, p. 115) asserts that necessary and sufficient conditions exist for a program to succeed if: "(1) it intends to bring about some change; (2) its intentions are clear; (3) its planned activities are reasonable i.e., they are of the right nature to influence the expected outcome; (4) its activities are sufficient in quantity and quality to exert that influence; (5) its resources are present in sufficient amount and type for the activities to be implemented as planned." To identity these conditions she poses a series of questions which in our adaptation are as follows:

- Do the main events have a clear and understandable purpose?
  - Are they sequentially and causally related (does the IF--->THEN framework apply)?
  - Are there means to judge their occurrence (see later question on activities)?

- Are the educational effects clear and understandable?
  - Are they sufficiently specific or do they lend themselves to further specification?
  - Are there: (1) indicators; (2) criteria; and, (3) sources of evidence to judge their occurrence? If not, are there indications as to how they can be obtained?

- o Do the educational effects imply the consequences?
  - oo Are there: (1) indicators; (2) criteria; and, (3) sources of evidence to judge their occurrence? If not, are there indications as to how they can be obtained?

- o Are the supporting activities for the antecedent main events clear and understandable?
  - oo Is each activity critical to the accomplishment of the main event (viz., does lack of occurrence lead to non-accomplishment)?
  - oo Are there: (1) indicators; (2) criteria; and, (3) sources of evidence to judge their accomplishment?
  - oo Does the accomplishment of all lead to the accomplishment of the main event?

- o Have resources been clearly specified as to the type and amount needed?
  - oo Are the resources adequate to insure the accomplishment of the activities? If not, can they be obtained?

- o Have barriers been identified? If so, are there ways of coping with them if they should occur?

- o Have unplanned consequences of the program been identified? If so, are some of them so fraught with risks as to make program implementation unlikely or undesirable?
  - oo Are some of them likely to work counter to the desired effects or consequences?
  - oo Are some of them likely to exacerbate the problem that the program was intended to ameliorate*?

- o Have intervening events been identified? If so, is the likelihood of occurrence of some of them so great as to make program implementation unlikely or undesirable?

- o Is the program so structured that some members of the target group are more likely than others to participate in the program? If so, why?

---

* Sieber (1981) identifies seven mechanisms by which intentions are converted into opposite results.

In addition, for programs that are near the point of implementation, the following can be asked:

- Is there evidence that clients will have the necessary prior knowledge and skill to benefit from the program?
- Is there a high degree of correspondence based on logic, prior experience and/or research results, between the program content and the problem, issue or need being addressed?
- Is the content of the program of sufficient breadth and depth to enable the client to:
  - learn what is proposed?
  - have enough contact with the program to acquire a sufficient level of skill to do what is proposed?
  - know what else they must have (equipment, services, resources) or do to make the planned changes?
  - believe that they can make the change and have the desire to do so?
- Have provisions been made for: promotional efforts; the involvement of other agencies; and, the involvement of key influentials for program legitimation?
  - Are these efforts appropriately tailored to the audiences involved?
- Have provisions been made for staff training?
- Have provisions been made for monitoring program accomplishments and their use for program management?

Undoubtedly experienced program planners can think of even more questions. Plausibility relates directly to how well these questions can be answered. Since there are degrees of how well the questions can be answered, plausibility is really a probabilistic concept--**a program has a degree of plausibility rather then being or not being plausible**.

5.9.2 Conditions That Enhance Plausibility

There are other conditions that also foster plausibility. They are **robustness**, **consensus**, and **commitment**--each is deserving of some discussion.

In the course of interviewing stakeholders and involving them in the program design process a degree of support is generated for the program. In addition, those who have been critical of the agency's past efforts are allowed to air these criticisms and suggest constructive alternatives. Hence, though not intentional, stakeholder involvement can lead to a kind of **robustness** in that the program may be better able to survive the throes of competition with others be it for resources, autonomy or authority.

Another condition, which if present can greatly enhance plausibility is **consensus**--the extent to which there is agreement among those who are instrumental in developing and delivering the program as to what they are about and what their respective roles are in this effort. In the absence of such agreement it would seem problematic to expect that the results of their efforts would add up in any meaningful way and this is especially so if their roles are interdependent. The design team's involvement in the modeling process is an important means of developing consensus as are the verification exercises a way of developing consensus with those not part of the original team. Hence, staff consensus can be yet another important aspect of plausibility.

Staff involvement also develops a degree of **commitment** to the program which can be a powerful motivator in all aspects of program design, development and delivery.

5.9.3 Evaluability and Plausibility

This is not a monograph on the do's and dont's of program evaluation, even though there are a few chapters devoted to the topic. However, it is of value while discussing plausibility to examine the notion of the evaluability of a program, especially since many of the techniques used in program design and development have their origin in that discipline. Put very simply, if a program can be judged to have a high degree of plausibility using the preceding criteria then it is an easy matter to discuss the different kinds of evaluation of the program that might be useful from implementation/service delivery to formative/improvement to summative/impact. Some of these may not be **feasible** given the degree of maturity of the program or the complexity of the effects and their consequences; nevertheless, their discussion is not difficult.

5.9.4 Using the Criteria

Judgments about plausibility will be made; such judgments will be influenced by the reasons they are being made as well as by those who make them. Competitive situations be they for funds or lead roles may find the criteria applied more stringently than for program development. Similarly, those who are involved in the program might apply the criteria differently than would a disinterested, third party.

In the program design workshops to-date not much time or effort is devoted to the concept of plausibility. By the time the design team works through the series of systematic, disciplined steps they have given their very best judgments as to what the form and some of the substance of the program should be. In addition, they are tired. They are not inclined to be critical of what they have done. Further, if time was sufficient and the Facilitator did his or her job, there should be nothing further to say. Plausibility should be redundant with all that preceded it. **Plausibility was what it was all about!**

6. Incorporating Relevant Documents into the Process

If documents pertaining to prior, related programs, relevant research or evaluation results exist and are to be useful to the group their contents need to be part of their deliberations. Ideally, members of the design team will have sufficient familiarity with the documents to reflect upon the relevance of their content for the group. Short of this, arrangements need to be made by the administrative contact person to identify the documents and arrange for some of the group to review the document(s) between the first and second series of workshops and report back to the group. It is preferable but not always practical to have at least 2 members review the same document in order to allow for some possible differences in interpretation to emerge, if such exist. In the event that such a task is too time consuming for any of the group the administrative contact person will have to arrange for someone else to review the materials according to some specifications set down by the group and report back to them. Usually someone of the level of a graduate student or the person who does the interviews can perform this task fairly readily. Another alternative is to enlist the aid of colleagues of the group members thereby not only getting the work done but also maintaining the involvement of others who are important to the acceptance of the results of the group's efforts (see Russell, 1989).

Very little has been done with the analysis of documents to-date. This is due in part to the relative scarcity of such for the topics being considered. In addition, a rather narrow definition of "document" has been used. Russell, in her review of the 4-H program in Connecticut has used a much broader definition of "document" and has done what probably amounts to the most through and comprehensive "document" review to-date. In this process she and other staff members have reviewed: accountability reports; staff newsletters; minutes of staff meetings; 4-H participation type data; staff training and publications; funding sources--public and private; earlier mission and goal statements; staff involvement with volunteers; classroom based activities; prior program reviews, etc. The reader is referred to her report (Russell, 1989) for details on an extremely imaginative and thoughtful approach to what can be done using a more comprehensive definition of "document." Also, as intended, this approach maintained the involvement of other colleagues of the design team members.

7. Identifying Stakeholders and Determining their Viewpoints

This chapter introduces in more detail the concepts of stakeholder and stakeholder interviews. A set of questions are adapted/developed for the interviews and individual stakeholders for different categories are identified. Interview procedures are developed and group analysis procedures are outlined including how the group arrives at a set of conclusions from them. Thematic observations are made which are included in subsequent steps.

7.1 Stakeholder Identification and Questions

In Chapter 2 we made a distinction between persons who could be considered stakeholders to an organization and those who could be considered stakeholders to a topical or thematic area. **They are not necessarily the same persons**. Figure 7.1 attempts to illustrate these relationships wherein the area encompassed in the rectangle represents knowledge of the organization and the area encompassed in the circles represents knowledge of the topic. For example, a stakeholder to an organization is more likely to know something about the organization's involvement in a number of different topical areas (as represented by the rectangle). Conversely, a stakeholder to a topic may know a great deal about the topic but have partial (topic A), limited (topic C) or no knowledge (topic D) of the organization and its' involvement in the topic. Alternatively, a stakeholder to a topic may know a great deal about the organization as it is involved in the topic but nothing more about either one (topic B).

In this section we are interested in stakeholders to a topical or thematic area. But how do we define stakeholder for these purposes and why do we seek information from them? A **stakeholder** is an individual (or group) who has a special interest in or influence over the topical area or program-to-be **and** who can provide information that will be useful for the development, implementation and evaluation of the anticipated program*. Information is obtained from stakeholders in order to produce or shape a program so that it will be more "robust" and "impactful." "Robust" in the sense that it has the potential for survival through the involvement and support of persons who are important for its future. "Impactful" in the sense that it will more likely produce the desired changes with the intended audiences or target groups, by identifying differences in viewpoints about what is intended and even trying to resolve them at a later date, if necessary.

Early in the first session the concept of stakeholders is introduced and the group is asked to identify some general categories. This seems to help them work with the concept as well as to help map the "terrain" in which the program operates. Usually they can readily identify general categories. In fact, they usually identify too many and the categories have to be reduced in number later on.

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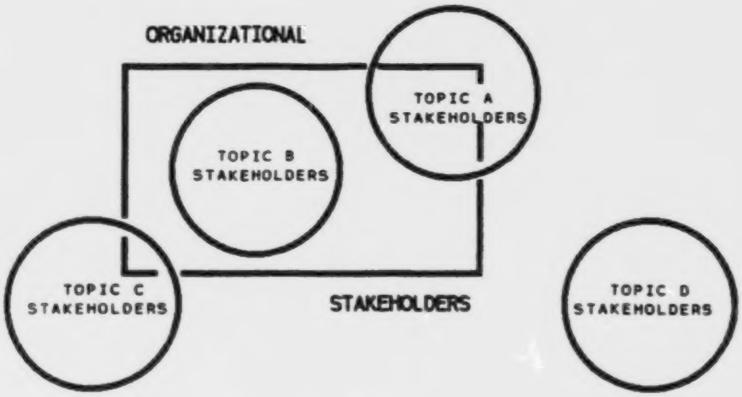
* See Benveniste (1989) and Majchrzak (1984) for other definitions of stakeholder.

Figure 7.1 Comparison of Organizational And Topical Stakeholders



By the time the concept of stakeholders is revisited later in the first session, the workgroup has already done some modeling and has a better idea of what the whole process is about. Hence, they are clearer in their own minds as to what the program-to-be is that they are discussing.

In revisiting the concept the group is first asked to develop a set of questions about the topic that they want to use with stakeholders. As a discussion point they are given an illustrative set of questions and asked to adapt them to their particular situation. Those questions given in Table 7.1 are a sample that have been used and refined based on experience gained through many of the case studies cited earlier. **They are "not" intended to be adequate as is because they were developed for existing programs and not for new or never-before-done kinds of topics or programs.** They **may be useful** with some modifications **or** they may be **irrelevant** and completely inappropriate.

For example, in working on Import Substitution on Guam, Workman (1988) interviewed growers about their perceived barriers in producing certain commodities so as to better determine what the structure and content of the program should be. As a consequence the questions were very different from the sample ones. **In general, the less past experience there is to build on the more likely it is that the questions will take on some kinds of needs assessment appearance, even though the questions may be more specific than the usual kinds of needs assessment questions** (United Way, 1982; Johnson, 1987; Kettner, et. al., 1990; McKillip, 1987).

It is instructive to review the questions and their intent (as indicated in the parentheses) in Table 7.1 before adapting them because they attempt to systematically elicit responses from stakeholders with regard to a particular extant program. **[We should recall that the interviewees never see these questions.]** The first question is intended to serve as a basis for refreshing the interviewee's memory and to provide the interviewer(s) with a basis for understanding and interpreting later responses. The second question also serves as a refresher but allows the interviewees to reflect the organization or structure of their thinking with regard to the subject. Question 3 and 3a try to elicit views on current goals or others that might be pursued. Similar queries are made for target groups with questions 4 and 4a. Questions 5, 5a and 5b focus on perceived benefits (primary and secondary) or spinoffs and the things that Extension might do that they are not currently doing, to bring about these benefits. Question 6 is an increasingly important question for interagency and/or interdisciplinary work while 6a attempts to gauge the nature of needs that are not met by any of the agencies involved. Question 7 gauges stakeholder's perceptions of resource adequacy. Questions 8 and 9 try to elicit views on barriers, barrier reductions and intervening events while 10 tries to determine what it is they would like to know about the program, if anything. Eleven taps their thoughts about the future of the program while 12 is used as a vehicle for closing the interview. Question 13 can be used as a means of "snowball" sampling to increase the number of stakeholders to be interviewed, if such is desired. Table 7.2 shows how these questions were modified to suit Iowa's Retail Trade Program, one for which there was a considerable amount of past experience. Table 7.3 shows how the Louisiana Water Quality workgroup modified these questions to a topic for which a prior program had not existed.

In deciding how many stakeholders should be interviewed and which ones, a number of points need to be emphasized. First, this is not an exercise in statistical sampling but rather a judgmental process-there is no numerical quota for each category or overall (Brewer & Hunter, 1989; Henry, 1990; Patton, 1990). However, for some categories (e.g., Extension staff) we do try to build in variation by region, gender and ethnic background, if appropriate. (If not appropriate, it still doesn't hurt to keep them in mind.) Alternates or back-up interviewees might also be planned for some categories. Second, one has to keep asking the question whether or not a potential interviewee both knows something useful about the topic **and** may be in a position of influence with respect to it. There may be a tendency to want to use the interviews as a device for educating interviewees about the topic. Such is **not** the purpose of the interview and if it is felt necessary to provide the interviewee with information about the topic then it is likely that the person is not a stakeholder. A general rule-of-thumb born of experience is that **"the greater the need to provide the interviewee with information about the topic the less likely it is that the person is a stakeholder"**. The exception of course, is that some information must be given in the contact letter and introductory statement--more will be said about that later. Finally, one of the considerations governing the number of interviews to be conducted is the cost and time required to conduct, transcribe and analyze them. A cost per interview figure is not used since many of the costs can be absorbed via existing resources (e.g., staff's secretaries doing transcription work, etc.). A small number, about 30 interviews per topic is recommended but one can end up with 30 to 100. Pre-tests

Table 7.1 Illustrative Example Of Stakeholder Interview Questions For Program XYZ

1. What has been your experience with the Extension XYZ Program of the University of ________? (MEMORY REFRESHER & BASIS FOR UNDERSTANDING
2. What are your overall views of Program XYZ in this State? LATER RESPONSES)
3. What do you think Program XYZ is trying to accomplish? (GOALS)
    a. Are there other things you think it should be trying to accomplish? (OTHER GOALS)
4. Who do you think is being served by this program? (TARGET GROUP)
    a. Are there others who you think should be served? (OTHER TARGET GROUPS)
5. What benefits do you feel that people receive from their participation in this program? (BENEFITS)
    a. What other benefits do you think result from this program? (SECONDARY BENEFITS OR SPINOFFS)
    b. Are there other things Extension could do to bring about these benefits? (ADDITIONAL EFFORTS)
6. How do you feel that Program XYZ operates in conjunction with those of other organizations serving ___________? (WORK WITH OTHER AGENCIES)
    a. Do you feel that there are needs that none of those groups are dealing with? (UNMET NEEDS)
7. Do you think the resources of the Program are adequate? (RESOURCES)
    a. If yes, in what ways do you feel they are adequate?
    b. If no, what more do you feel is needed?
8. Do you feel that there are difficulties or obstacles that staff &/or volunteers have to deal with in carrying out the program? (BARRIERS)
    a. If so, how do you think that these difficulties can be dealt with? (BARRIER REDUCTIONS)
9. In your view, are there any particular conditions or obstacles that make it difficult for clientele to benefit from their participation in this program? (BARRIERS or INTERVENING EVENTS)
    a. If so, what might be done about them? (BARRIER REDUCTIONS)
10. If the program were to undergo further study or evaluation, are there questions you would like to see answered? (INFORMATION DESIRED)
11. In what ways do you think the program should change to meet future needs in this State? (FUTURE PERSPECTIVE)
12. Do you have any other thoughts or ideas about this program that you would like to share with us? (CLOSE OUT)
13. Are there others you can suggest that we talk with concerning Program XYZ? (Optional - to be used for expanding stakeholder interviews.) (OPTIONAL)

Table 7.2 Retail Trade Programs' Stakeholder Questions

1. What has been your experience with the Iowa State University Extension Retail Trade Program?

2. What are your overall views of the Retail Trade Program?

3. What do you think the Retail Trade Program(s) is trying to accomplish?

    a. Are there other things you think they should be trying to accomplish?

4. Who do you think is being served by this program(s)?

    a. Are there others who you think should be served?

5. What benefits do you feel that people receive from their participation in this program(s)?

6. What else should Extension do to bring about these benefits? These could be topics, delivery methods or other efforts.

7. How do you feel that [illegible] Retail Trade program(s) operates in conjunction with those of other organizations (such as Small Business Development Centers, community colleges, private consultants, & others)?

    a. Do you feel that there are needs that none of these groups are dealing with?

8. Do you think the resources of the program(s) is adequate?

    a, If yes, in what ways do you feel they are adequate?
    b. If no, what more do you feel is needed?

9. If the program were to undergo further study, are there questions you would like to see answered?

10. Do you have any other thoughts about this program(s) that you would like to share with us?

Thank you very much for your time and the information you shared with us?

Adapted from Hammond,D. et al (1989)

Table 7.3 Stakeholder Interview Questions for Louisiana Water Quality Program Design

1. In your capacity as __*__, or, in your association with __*__, in what ways is
(title) (organization)
__**__ involved in water quality/quantity concerns?
(organization)

2. Are there water quality/quantity problems that you feel __**__ should deal with?
(organization)

3. What do you see as the most important concerns/issues affecting water quality/quantity over the next year? Over the next 5 to 10 years?

4. What additional information does __**__ need to know to deal with your water
(organization)
quality/quantity concerns?

5. What do you feel the general public needs to know about water quality/quantity?

6. What do you feel the elected officials or regulatory agencies need to know about water quality/quantity?

7. Who do you feel should be addressing the water quality/quantity problem?

8. Are you familiar with the Louisiana Cooperative Extension Service county agent or home economist or 4-H agent?

8.1 If yes,
(a) In what ways?
(b) Do you think LCES should play a role in addressing water quality/quantity concerns/problems?
(c) How?

9. Do you have additional concerns/suggestions about water quality/quantity?

* Use title/position of the person in the organization/agency.
** Use name of the organization/agency.
Adapted from Verma, S. (1990).

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are useful and a small number should also be planned (e.g., 3-6). One way to keep the number of interviews down is to prioritize the categories and the interviewees within each category. In this manner, if time and money run out, the highest priority ones will be completed.

Most of the interviews conducted to-date have been individual interviews conducted over the phone or in a face-to-face setting, usually by one person. However, for some purposes group interview techniques are more appropriate. For example, in Louisiana's

Table 7.4 Louisiana's Leadership Development Program Design: Focus Group Interview Questions

Opening Statement

In a democratic society such as ours citizen participation through group activities and programs is very important. And, for groups to function effectively we need the people who have the abilities and skills to act as leaders.

For a number of years the Louisiana Cooperative Extension Service has been providing training and educational experiences to help people learn the skills by which they could assume leadership roles in families, organizations, and the broader community. Some of the leadership skills the Extension Service has tried to impart are organizing groups, serving as officers, leading discussions, guiding decision making, teaching and others. The Extension Service is reviewing these efforts to see how it should reorient and adjust the leadership development effort to meet the changing needs of our audiences as they prepare to face the challenges of the 21st century. You were chosen to be a part of this group because of your knowledge and experience.

Questioning Route

1. To start off could you tell us some of the leadership activities in which you have been involved?
2. Did the Extension Service provide any experiences that helped you in these leadership activities?
3. Are there other leadership skills that could have benefited you in the past and which you feel you will need in the future?
4. Are there some leadership skills that other people may need so as to assume leadership roles in society?
5. In your view, who (or which organizations) should have the responsibility for leadership training in Louisiana?
6. Do you have something else you would like to add?

Concluding Statement

Thank you for participating. We shall share the results of this discussion with you.

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Table 7.5 Stakeholder Contact Letter for Iowa's Retail Trade Program

Dear (name):*

Iowa State University Extension Service is reviewing its retail trade programs in an effort to improve our educational offerings. You have bees identified as an individual who could provide useful information regarding our Retail Trade Programs.

You will be contacted in a few days by (name) to set up a time for a telephone interview. The interview will consist of 10 questions and takes approximately 15-20 minutes. We will be tape recording the interview in order to accurately preserve your comments. However, the summary report will contain no comments attributable to any individual involved in this process. Your comments will be treated in strict confidence.

The retail trade efforts of Iowa State University Extension have included the retail trade analysis, business management programs, customer relations, new business start-up, and consumer image studies among other related programs. The questions will deal with your knowledge and perception of how these programs have been conducted and how they could be improved.

I hope that you will be willing to take 15 minutes to assist us in this program review. If you have any questions or concerns, please contact (name) at (phone #).

Thank you for your assistance. You can look forward to a call in a few days.

Sincerely yours,

Dean and Director

Table 7.6 Stakeholder Contact Letter for Louisiana's Water Quality Program

Dear (name):*

The Louisiana Cooperative Extension Service (LCES) is the educational arm of the LSU Agricultural Center and conducts non-formal educational programs in agriculture, home economics, 4-H youth and economic and community development to benefit Louisiana families. The LCES has identified water quality/quantity as an issue of wide public concern and is determining the need for educational programs in this area. You were identified by a working committee of LCES as a representative of your organization that could provide useful information and insights regarding water quality/quantity concerns.

You will be contacted in the near future to set up a time for a telephone interview. The interview will consist of 9 questions concerning your ideas about water quality/quantity and will take approximately 15 to 20 minutes. We will be tape recording the interview in order to accurately preserve your comments. However, the summary report will contain no comments attributable to any individual involved in this process. Your comments will be treated in strict confidence.

Thank you for your participation in this effort. If you have any questions or concerns, please contact (name) at (phone #). You can look forward to a call in a few days.

Sincerely,

Vice-Chancellor and Director

* Note : it is important that the contact letter not specifically identify the questions to be asked nor include information which would provide answers to them.

Table 7.7 Stakeholder Categories for the HNDP Program

CATEGORIES/NUMBER OF PERSONS

NMC President - 1

Board of Regents - experienced members - 3 (one each from Saipan, Tinian, Rota)

Manager, Saipan Farmer's Market - 1

Manager, Tinian Farmer's Market - 1

Director, Department of Natural Resources - 1

Senate Chairman on Health, Education & Welfare - 1

House of Representatives Chairman on Appropriations - 1

Growers - 3 (one each from Saipan, Tinian, Rota)

Homemakers 3 (one each from Saipan, Tinian, Rota)

Total - 15

Table 7.8 Stakeholder Categories for the Retail Trade Program

CATEGORIES/NUMBER OF PERSONS

Iowa State University Extension Staff

Administrator - 1

Area Directors - 2

Area Specialist - 1

State Specialists - 2

County Staff - 3

Total - 9

Outside Agencies Knowledgeable of Retail Trade Programs

Other Providers - 2

State Agency - 1

Congressional Staff - 1

Total - 4

Local Community Leaders Who Participated in Retail Trade Programs

Total - 19 - from communities of varying size: 2100; 2900; 6300; 12,600

Grand Total - 32

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Table 7.9 Louisiana Water Quality List of Stakeholders by Categories

Commodity Groups

Executive Director LA Forestry Assn.
President, LA Cattleman's Assn.
President, LA Oyster Dealers & Growers Assn.
Director, Natural Resources & Safety, LA Farm Bureau
President, LA Soybean Assn.
Manager, Live Operations, ConAgra
President, Seafood Marketing Promotion Board
President, Concerned Shrimpers of America
President, LA Cotton Producers Assn.
Member, American Sugarcane League

Private Groups

President, Bayou Pierre Water System
Geographer, Flood Plan Management Assn.
Waste Water Management
State Contact, Keep America Beautiful, LA Litter Control Recycling Commission
Ducks Unlimited
Public Affairs Director, LA Chemical Assn.
Mid-Continent Oil & Gas
President, Plantation Trace Homeowners Assn.
Director, Environmental Quality, LABI
Member, Mortgage Bankers Assn. of LA
President, Water Quality Assn. of LA
Recycling Coordinator, Browning-Ferris Industries
Drilling Superintendent, Stomm-Sheele Inc. & Vice-President, Water Well Drillers Assn.

Federal Agencies

U.S Environmental Protection Agency
Conservation Agronomist, Soil Conservation Service
U.S Fisheries & Wildlife Service
County Supervisor, Farmers Home Admin.
Chief, Regulatory Branch, U.S. Corps of Engineers
Forest Supervisor, Kitsatchie National Forest
ASCS State Office
Chairman, LA Citizens Advisory Committee, Gulf of Mexico Project

State Agencies

Parish Sanitarian, Dept of Health & Hospitals
Dept. of Transportation
Secretary, Dept. of Wildlife & Fisheries
Office of Public Health, Dept. of Health & Hospitals
Asst Commissioner, Agricultural & Environmental Science
Dept. of Environmental Quality
Asst Secretary, Office of Tourism & Promotion
Director, LA Geological Survey
State Forester, LA Office of Forestry
Asst Commissioner, LA Dept of Agriculture & Forestry, Soil & Water Conservation

Local Agencies

Sabine River Authority
Chairman of the Board, Sabine River Authority
General Manager, South Lafourche Levee District
President, Chamber of Commerce, Coushatta, LA
President, LA Municipal Assn.

Educational Groups

Pres. LA 4-H Executive Committee
Pres. LA County Ag. Agents Assn.
Pres. LA Extension Home Economists Assn.
Pres. LA 4-H Agents Assn.
Vice-Chancellor & Director, LCES
Assoc. Director, LCES
Research Scientist, Hydrogeologist, Center for Energy & Environmental Studies

Leadership Development program design, focus group interviews were conducted (Krueger, 1988; Morgan, 1988; Stewart & Shamdasami, 1990) because the workgroup felt that the interviewees would better articulate their views if they could share and reflect upon their experiences with others (Verma, 1991). The questions they used for these purposes are given in Table 7.4.

The initial letter contacting the stakeholder is a very critical document. See the samples in Table 7.5 for the Retail Trade Program (for which there was a program) and Table 7.6 for Louisiana's Water Quality design (for which there had not been a prior program). The letter should encourage the person to allow the interview and to tell them a little about why one wants to do so (viz., provide background on the purposes and detail). **However, it should not provide information that will serve as answers to the questions.** Stakeholders need also to be assured of the anonymity of their responses and that attribution of responses to specific individuals will not be made. It is felt that a high level signatory such as the Director of Extension, lends importance and credibility to the request. If the interview is to be conducted face-to-face, over the phone, in a group or if they have a choice, the letter should so state. If it is to be recorded verbatim then they should be told of this also. Some states have very stringent rules about conducting interviews, such as getting written permission beforehand.

The design team may choose to devote some time to adapting and/or drafting the contact letter or they may choose to let some members of the group work with the administrative contact person at a later time (usually the latter). At this point the workgroup can revisit the list of stakeholder categories, eliminate some and begin providing names for others. See Tables 7.7, 7.8 and 7.9 for illustrative examples from the HNDP program, the Retail Trade program and Louisiana's Water Quality effort. Addresses and phone numbers should be provided to the administrative contact person while the group is still together, to the extent possible, so as to accelerate the process and reduce the number of follow-ups that have to be made later.

The opening statements of the interview are also critical in setting the stage without providing answers to the questions (see the sample introductory statement in Appendix A on notes to the administrative contact person). The interviews should be conducted by a third, neutral party--someone who is not committed to the topic and who doesn't have to have any special topical expertise. Graduate students and even sometimes super-secretaries can do these very well if given adequate supervision and training. However, special skills are required for focus group interviews (Krueger, 1988). To-date much use has been made of phone interviews conducted by a third party that are tape recorded verbatim, typed verbatim and then these transcripts are used as the basic documents for analysis purposes.

7.2 Analyzing Stakeholder Viewpoints

There is a great deal of analytic work that can be done with the interview results--usually far more than the team will ever have time to do while they are together. For purposes of the following discussion it is assumed that a typed transcript of each interview is available on a diskette that can be entered into a computer for analysis purposes as well as printed out. These transcripts are the basic analysis documents. It is also possible to distinguish between analytic work that the team does together and analytic work that is done prior to and perhaps also, subsequent to the their meeting(s). This latter work is usually done by someone (e.g., a graduate student) who is not a member of the team. Prior experience has shown that the work of the group and its comprehension of the results can be greatly enhanced if there has been a good deal of analysis done prior to the second session of the group. For the most part this work has been done on a computer using one of several content analysis programs (e.g., Gofer, Asksam, FYI 3000 etc.). The results are usually organized by each question and by each category of stakeholder. They may be a "shredded" version of the interviewees' responses (viz., selected statements from a paragraph) or their complete response to the question. The advantage of organizing the results this way is that the individual respondent is not as readily identifiable (assuming of course that there are 2 or more persons in each category of stakeholder). Ratings may be made of the judged familiarity of the interviewee with Extension generally, the subject-matter etc. and a great deal of analyses can be done if time and resources permit (see Mortvedt, 1990; 1991).

Regardless of the form in which the results are presented to the group the **basic idea is to have them feel that what was done was reasonable, that the summaries and conclusions they develop are accurate, and that the important inferences are made by them**. On handing out the materials that the group will be working with, the following steps are usually followed:

1. They are reminded that the purpose of the exercise is to discern trends in viewpoints among stakeholders and stakeholder groups and not to identify who a particular respondent might be. If the latter occurs such results should be kept within the group and not mentioned or discussed otherwise.

2. The interview results are divided up so that at least 2 members of the team will read all of the results for a single category of stakeholder, discuss their observations with one another and reach agreement on what they have read. For all of the categories of stakeholders the work can be distributed fairly equally by having different members pair up (or triple up, etc.) with others, some taking a fewer categories that are more heavily represented, others taking more categories that are less heavily represented etc.

3. Once the members have been identified they are given a period of time (usually 1 1/2 - 3 1/2 hours) to read the results, discuss them and arrive at some very cryptic summary statements.

4. The group is reconvened and a spokesperson for each analysis sub-group and stakeholder category narrates their results to the Facilitator(s) who puts them in a large matrix that has been taped on the wall. This matrix contains rows for the questions and columns for the stakeholder categories, as illustrated in Figure 7.2.

Examples of such summaries from the Retail Trade Program and from Louisiana's Water Quality program design are given in Table 7.10 and 7.11, respectively.

Once the matrix has been completed the group is asked to identify any themes or observations that occur to them by virtue of these results. This list of Themes can vary widely in its content and that's ok. It is meant to capture whatever thoughts they may have before moving on to the other topics. They may also request that further analysis, verifications etc., be made and included in the program design report. See Tables 7.12, 7.13 and 7.14 for examples from the HNDP program, Retail Trade program and from Louisiana's Water Quality program design.

The results of the stakeholder analyses represent the "pinnacle" of informed opinion with regard to the topic because they involve the viewpoints of a group that the design team judged, on the basis of their experience, to be the most knowledgeable. Viewpoints of others would likely represent a "descent" from this pinnacle because they would not be as knowledgeable. If it were possible to select a random sample of all possible stakeholders, results from interviewing them would not be nearly as informative. The magnitude of the discrepancy of the results for these two procedures would be a test of the expertise of the workgroup. The larger the discrepancy in favor of the judgmental sample, the more "expert" would the team members be. The smaller the discrepancy, the less "expert" they would be. Unless, of course, all possible stakeholders were equally informed. Then, and only then, could the difference not be reflective of their knowledgeability for all would be equally well informed or equally poorly informed. The fact that the team would not know the extent to which stakeholders are informed however, would be a sad commentary on "their expertise".

Figure 7.2 Sample Worksheet for Cryptic Summary of Interview Results

	Stakeholder Categories			
Questions	A	B	C	D.......N
1.				
2.				
3.				
4.				
5.				
6.				
.				
.				
.				
.				
n.				

7.3 Summary of the Sequence of Steps Involved in Identifying Stakeholders and Determining their Viewpoints

Figure 7.3 summarizes the sequence of steps involved in the determination of stakeholder viewpoints. One first has to decide whether the interview will be of an individual or group form. If the former then will it be face-to-face, over the phone or in some combination? These decisions will affect the nature and number of questions as well as the letter and contact procedures. Once contact has been made and the interviews conducted they must be transcribed and organized in such a manner as to facilitate analysis by the group as well as by anyone else who will be doing analytic work either in preparation for the group meeting or as a result of it. The analysis and cryptic summarization by the group results in a series of thematic observations that provide information for the modeling as well as for recommendations and next steps.

Table 7.10 Summary of Stakeholder Comments for the Retail Trade Program

Questions	ISU Personnel	Other Agencies	Community Retailers
1. WHAT HAS BEEN THE NATURE OF YOUR EXPERIENCE WITH THE IOWA STATE UNIVERSITY EXTENSION RETAIL TRADE PROGRAM?	GENERAL AWARENESS OF RETAIL TRADE ANALYSIS & STATE SPECIALIST	VARIED FROM SOME FAMILIARITY TO A GREAT DEAL OF FAMILIARITY	MOST PARTICIPANTS HAD KNOWLEDGE OF ONE OR MORE RETAIL TRADE PROGRAMS
2. WHAT ARE YOUR OVERALL VIEWS OF THESE RETAIL TRADE PROGRAMS?	GENERALLY POSITIVE BUT NEED TO BETTER DEFINE OUR TURF	GENERALLY POSITIVE	VERY INFORMATIVE PROGRAMS, UNIQUE INFORMATION, NEED MORE CURRENT DATA
3. WHAT DO YOU THINK THE RETAIL TRADE PROGRAMS ARE TRYING TO ACCOMPLISH?	RAISING AWARENESS OF CONSUMERS & RETAILERS, BETTER DECISIONS BY MERCHANTS & INDIVIDUALS, INCREASING RURAL COMPETITIVENESS WITH URBAN CENTERS	MEET NEEDS OF RETAIL BUSINESSES, LOOK AT ALTERNATIVES FOR THE FUTURE, MORE COOPERATION AMONG RETAILERS	ASSESS NEEDS, HELP BUSINESS PEOPLE BETTER UNDERSTAND CONSUMER NEEDS & BUSINESS POTENTIAL
(A) ARE THERE OTHER THINGS YOU THINK THEY SHOULD BE TRYING TO ACCOMPLISH?	INTEGRATE ECONOMIC DEVELOPMENT & RETAILING PROBLEMS	EMPHASIZE SUCCESS STORIES, INFORMATION ON RETAIL MIX WITHIN A COMMUNITY	CONSUMER RELATIONS & CONSUMER IMAGE
4. WHO DO YOU THINK IS BEING SERVED?	BUSINESS PEOPLE DIRECTLY & CITIZENS, WHOLE STATE, & EVERYONE, CLIENTELE TOO BROAD	WHOLE COMMUNITY, ESPECIALLY SMALL RURAL COMMUNITIES,WHOLE STATE	BOTH CONSUMERS & BUSINESSES, COMMUNITY LEADERS, SMALL COMMUNITIES
(A) ARE THERE OTHERS WHO YOU THINK SHOULD BE SERVED?	MORE EMPHASIS ON SMALL COMMUNITIES	MORE OF SAME PROGRAMS	MAYBE INDUSTRIES, SERVICE BUSINESSES
5. WHAT BENEFITS DO YOU FEEL THAT PEOPLE RECEIVE FROM THEIR PARTICIPATION IN THESE PROGRAMS?	INCREASED AWARENESS & KNOWLEDGE OF RETAIL SITUATION, UNIQUE INFORMATION USED IN DECISION MAKING, SOURCE OF INFORMATION TO DRAW ON	INCREASED UNDERSTANDING OF BUSINESS ENVIRONMENT	INTELLIGENT PLANNING, COMMUNITY EVALUATION, AWARENESS & UNDERSTANDING OF RETAIL TRADE ANALYSIS & WAYS TO IMPROVE BUSINESS, UP-TO-DATE INFORMATION TAILORED TO SPECIFIC USES
6. WHAT ELSE SHOULD EXTENSION DO TO BRING ABOUT THESE BENEFITS? THESE COULD BE PROGRAMS, TOPICS, DELIVERY METHODS, ETC.	NEWSLETTER, MORE MARKETING OF PROGRAMS, MORE USE OF ELECTRONIC MEDIA, MORE MULTI-AREA MORE STAFF	MORE COOPERATION WITH AGENCIES (E.G. SBDC), BETTER MARKETING PROGRAM	MORE ON MAKING CUSTOMER DECISIONS, NEWSLETTERS, COMMUNITY IDEAS SHARING, MORE STAFF, LET PEOPLE KNOW WHAT'S AVAILABLE, MORE FOLLOW-UP, MORE INFO. ON ADVERTISING, MORE SHORT COURSES ON CAMPUS
7. HOW DO YOU FEEL THAT THESE RETAIL TRADE PROGRAMS OPERATE IN CONJUNCTION WITH THOSE OF OTHER ORGANIZATIONS (SUCH AS THE SMALL BUSINESS DEV. CENTER, COMMUNITY COLLEGES, PRIVATE CONSULTANTS, & OTHERS)?	BOTH CONSUMERS & BUSINESS, COMMUNITY LEADERS, SMALL COMMUNITIES, WHOLE STATE	NEED MORE COOPERATION, MORE MARKETING OF PROGRAMS	LITTLE KNOWLEDGE OF OTHER PROGRAM PROVIDERS, OTHER PROVIDER'S PROGRAMS TOO BROAD & NOT ENOUGH DEPTH
(A) DO YOU FEEL THAT THERE ARE NEEDS THAT NONE OF THESE GROUPS ARE DEALING WITH?	MORE RESEARCH, MORE INPUT FROM BUSINESS COMMUNITY IN PROGRAMMING, MORE INTEGRATED PROGRAMMING	MARKET RESEARCH FOR SMALL BUSINESSES, FINANCIAL ASSISTANCE	CUSTOMER RELATIONS DEVELOPMENT OR SERVICE PERSONNEL, CAMPUS SHORT COURSES

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Table 7.10 (continued)

Questions	ISU Personnel	Other Agencies	Community Retailers
8. DO YOU THINK THE RESOURCES OF THE PROGRAM ARE ADEQUATE?	NOT ADEQUATE, NEED MORE	NEED MORE STAFF WITH EXPERIENCE OF THE CURRENT STATE SPECIALIST	OK, NEED MORE STAFF, MORE RESEARCH FOR FOLLOW-UP
9. IF THE PROGRAM WERE TO UNDERGO FURTHER STUDY, ARE THERE QUESTIONS YOU WOULD LIKE TO SEE ANSWERED?	MORE CONCERNING WORKING WITH OTHER PROVIDERS (E.G. SBDC, COLLEGE OF BUSINESS)	WHAT ARE RELATIONSHIPS WITH OTHER AGENCIES & HOW TO STRENGTHEN?	MOSTLY NO, SHOPPING PATTERNS, ADVERTISING, HOW TO SLOW OUT-MIGRATION
10. DO YOU HAVE ANY OTHER THOUGHTS ABOUT THESE PROGRAMS THAT YOU WOULD LIKE TO SHARE WITH US?	POSITIVE RE STATE SPECIALIST, A SERVICE THAT SOME COMMUNITIES COULDN'T OTHERWISE AFFORD, UNIQUENESS OF ANALYSIS	DOING COMMENDABLE JOB, NEED LEADERSHIP & TECHNICAL ASSISTANCE FOR COMMUNITIES	ONLY INFO. OF ITS TYPE FOR SMALL BUSINESSES, DOING GOOD JOB,WANT LESS WRITTEN INFO. & MORE EMPHASIS ON PRACTICAL

Table 7.11 Summary of Stakeholder Comments for Louisiana's Water Quality Program

Questions	Education	Private	Commodity	Federal	State	Local
1. In what ways have you or your organization been involved in water quality/quantity concerns?	Direct: Household waste & litter With regard to program responsibility Soil erosion Recommending BMP's	Direct: Maintain jobs Protect habitat Legislation Regulations Public Relations Liability	Concern but with no perception of involvement Emphasize importance of WQ to members	Direct: Regulatory Provide assistance Maintain/monitor habitat-provide service	Direct: Testing, setting standards, licensing Develop water supplies, FSDW program, regulation, advisory, monitoring	Direct: Monitoring Coastal zone management Water conservation Flood protection Maintaining required quality & quantity
2. Are there water quality/quantity problems that you feel your organization should deal with?	Education of youth Need for networking among agencies Bottled water Flooding Agricultural discharge Fertilizer recommendations Quality of groundwater Waste of water	Permitting Cost-benefit Infrastructure degradation Uniform enforcement of regulation Reduction of discharges Continuous monitoring Restoring wetlands	Nonpoint source pollution More education of consumers	Effect of agriculture on sewage & drainage projects Protection of endangered species	Agency coordination Should take water samples Contamination of point & non-point sources Perception of unsafe drinking water Manpower to test private wells Management of groundwater system Saltwater intrusion	Conservation Abandoned wells User fees PCB cleanup Water viruses Public relations Dealing with public regulatory problems
3. What do you see as the most important concerns/issues affecting water quality/quantity over the next year? Over the next 5 to 10 years?	Drinking water Private wells Sewerage More testing & publicize results Surveillance & monitoring of water systems Locating & cleaning pesticide sites Taste of drinking water Household usage Point source pollution Agricultural usage	Well construction Conservation Treating & using Inappropriate agriculture Court rulings & public image Non-compliance Toxics Risk assessment Handling waste Subtitle D (landfill regulation) Capital costs & increased costs Infrastructure Jobs Permit delays	Identifying sources of problems Balancing producer needs with public needs Agency cooperation increase Nonpoint sources Point sources Concept of pine water is unreasonable	Agency cooperation NP sources of pollution Public awareness of problem insight Program effectiveness Pesticides Quality of irrigation water Plant discharges into rivers Cataloguing information	Funding & management Education Agency coordination Point & nonpoint sources Locating, cleaning abandoned chemical sites Public at mercy of media Lack of funds for FSDW & private well testing Selling LA	Abandoned wells Maintaining water shed Pollution; esp. herbicides, chemicals Declining water table Costs-providing water, cleanup Nonpoint source-urban & rural Zoning Illegal dumping Subsidence
4. What additional information does your organization need to know to deal with your water quality/quantity concerns?	Hazardous waste dumps Water contaminants Research (continued & updated) on agr research Demonstrations on agri chemicals LCES make available printed materials Monitoring of water related activities (eg drainage, stream channelization-clearing)	Sources of pollution Water technology Available resources Trends & changes over time External pollution (out of State eg. Miss. River)	Water table information Base line info. on WQ New pesticides & WQ Effect of adoption of practices	Program effectiveness Ground water usage Pesticide, fertilizer usage Current agency cooperation	Grant writing help Sound data bases Agency coordination Small watersuppliers technical expertise More public input Access to records of federal/state agencies What EPA is doing	Planning - projected water needs, industria needs re use & disposal Sea level rise Training needs Interaction of flooding & water quality Water system technology Acid rain Abandoned wells
5. What do you feel the general public needs to know about water quality/quantity?	Water test results Effects of contaminants Positive WQ improvements already made WQ curriculum for high & college students Understanding of technology currently at work Use & disposal of pesticides (homeowner training)	Water treatment Losing habitats Understanding risks Understanding costs Nonpoint source Rapid response to danger Progress already made	Groundwater supplies Problems are complex General public too contribute to problem Solutions require cooperation Quality of water going into marshes, estuaries	Quality on fact not emotion Each person influences WQ Improvements have been made	Less the better Treatment Sources of pollution Where water comes from, the quality & where it goes LA needs to know excellent SDW program Facts not clear Public school education Recycling	Water is a limited resource Conservation practices Individuals have impact on WQ WQ impact on individuals Causes of flooding & protection methods Maintenance of private wells

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Table 7.11 continued

6. What do you feel the elected officials or regulatory agencies need to know about water quality/quantity?	Extension has role in providing info. to elected officials Aware of cost vs. safety Elected officials should coordinate agency work Most regulatory agencies are understaffed, underfunded & overworked Location & identification of hazardous sites	Progress already made Understand science vs. emotion Long range planning Importance of habitat Testing procedures	Quality & sources of information Identity of point sources Separate fact from fiction Supplies & quality	Activities that affect WQ Agencies that regulate aspects of WQ Same as public	Better educated re problems Water cycle Interrelationships of problems Federal regulations & compliance by agencies Informed citizenry is key	General technology Cleanup technology Ordinances & enforcement regarding flooding Cost-benefits Prevention
7. Who do you feel should be addressing the water quality/quantity problem?	11 agencies involved in LA local, LCES, health dept.	Partnerships DHH,DEQ,DNR Private sector Everyone Medical assn.'s Agriculture Industry, business State realtors assn. Home builders assn. Corps of engineers LCES Sewage or water districts Mayors/town councils EPA	Local & federal agencies DHH DEQ DNR LDAF LCES	Federal, state & local agencies General public LCES	State agencies in coordination with federal but specifically DEQ, DNR, DHH	Sabine River Authority Everyone involved Local government DEQ DHH EPA State in general Suppliers
8. Are you familiar with the La. Coop. Ext. Svc. county agent or home economist or 4-H agent?	Yes	Yes - majority	Yes - all	Yes - all	Yes - all	Yes - all
8.1 (a) If yes, in what ways?	Identify programs in local areas WQ & agri-chemical use Area WQ agents	Agents, media, WQ forum	4-H, ANR, HE	County agents, home economists, fisheries agents, specialists, joint projects	Farm but not water, WQ advisory c'ttees	Horticulture hints (unique)
(b) Do you think LCES should play a role in WQ/Q concerns/problems?	Yes	Yes	Yes	Yes - all	Yes - majority	Yes
(c) How?		Pesticide use(farmers) General education Service or link with other agencies Families-appropriate practices Central clearinghouse Different approaches than past	Disseminate info. Research Conduct surveys Give advice	Education Information Public awareness Leadership	Grassroots education Liaison between agencies & public Organize public involvement	Information dissemination TV programs/seminars Monitor/advise operator boards Work as joint agency
9. Do you have additional concerns/suggestions about WQ/Q?	Lack of info. Much misinfo. WQ should be part of all program areas Waste management, landfills & groundwater contamination	Agri runoff,esp. chemicals Industrial chemicals; Acid rain Coordination with others; Misinfo. re landfills; Info. for planning models; Upgrade water systems	More info. re chemicals Requirements too stringent; Too much channelization of streams; Coastal erosion; Freshwater diversion; too much concern re unknown dangers	Wetland destruction Pesticide use & runoff Alternative water sources Maintaining hi WQ standards Need to act now	Lack of funding (DHH) Need legis. c'ttee re WQ Sources of WQ & cancer Cap artesian wells Bigger staff, budget Water abs. necessary in LA	Public awareness of immediacy Need technical asstnce.; need free testing;nonpoint source Coordination with other agencies Landfill mgmt.; prioritize issue

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Table 7.12 Themes/Observations from Interviews for the HNDP Program

- MIXED VIEWS REGARDING THE FUTURE OF AGRICULTURE IN CNMI
- ALL STAKEHOLDERS RECOGNIZED THE ROLE OF LAND GRANT IN THE FUTURE OF AGRICULTURE IN CNMI AND HAD SPECIFIC IDEAS REGARDING WHAT THE ROLE SHOULD BE
- SOME STAKEHOLDERS DO NOT HAVE A CLEAR IDEA OF THE FUNCTIONS OF LAND GRANT VIS-A-VIS THE DEPARTMENT OF NATURAL RESOURCES
- MOST STAKEHOLDERS ARE NOT FAMILIAR WITH THE HNDP PROGRAM
- STAKEHOLDERS ARE REQUESTING INFORMATION REGARDING WHAT THE PROGRAM IS OR ABOUT SPECIFIC ASPECTS OF IT
- STAKEHOLDERS REQUEST THAT PROGRAM INFORMATION BE PUBLISHED AND USED IN CLIENT CONTACTS (BILINGUAL?)
- ALL STAKEHOLDERS HAD SPECIFIC RECOMMENDATIONS REGARDING FUTURE PROJECTS/PROGRAMS

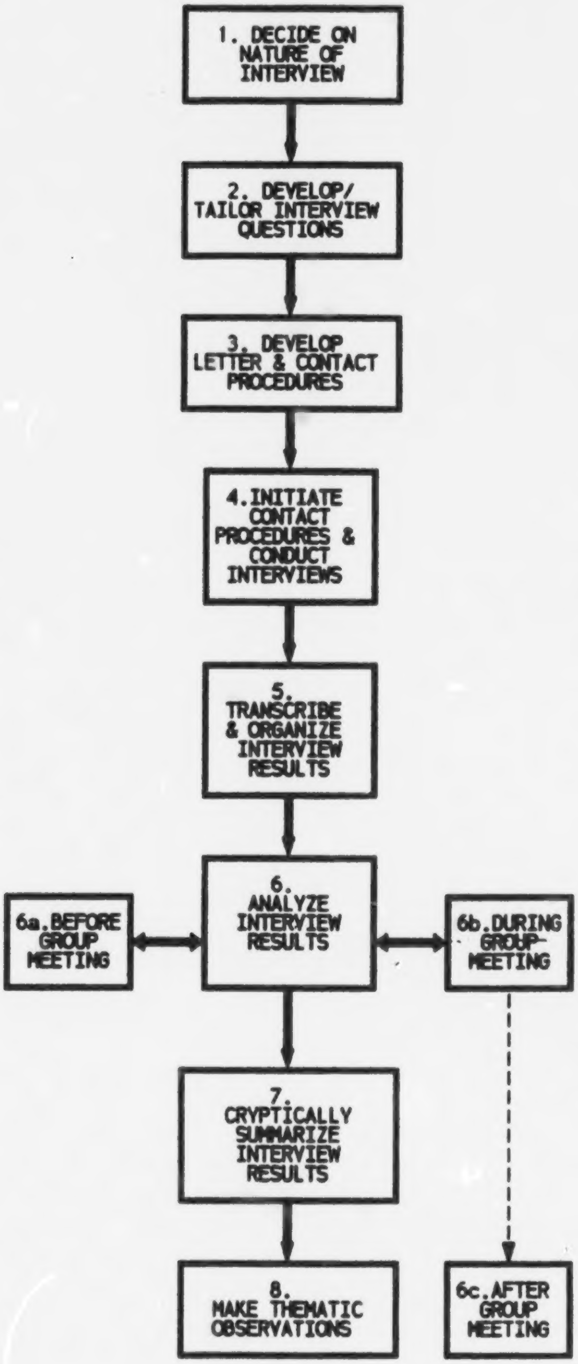
Table 7.13 Themes/Observations from Interviews for the Retail Trade Program

- RETAIL TRADE PROGRAMS ARE VIEWED POSITIVELY BY STAKEHOLDERS
- TRADE ANALYSIS PROGRAM APPEARS TO BE THE STANDOUT
- RETAIL PROGRAMS TEND TO BE ASSOCIATED WITH THE STATE SPECIALIST
- OVERALL THE RETAIL TRADE PROGRAM LACKS A CLEAR IDENTITY
- THE NEED FOR SERVICES OUTSTRIPS THE CURRENT CAPABILITY OF EXTENSION TO MEET THEM
- STAKEHOLDERS FEEL THAT BUSINESSES AND COMMUNITIES ARE BEING SERVED
- STAKEHOLDERS FEEL THAT THEY RECEIVE INFORMATION FROM EXTENSION THAT IS BOTH UNIQUE AND CREDIBLE
- EXTENSION ADMINISTRATION AND OTHER STAFF SEEM TO HAVE A LIMITED VIEW OF OR KNOWLEDGE REGARDING THE PROGRAM
- STAKEHOLDERS WOULD LIKE TO HAVE MORE DELIVERY MECHANISMS (E.G NEWSLETTERS, ELECTRONIC MEDIA, ETC.) AVAILABLE
- A LINK NEEDS TO BE MADE BETWEEN THE PROGRAM AND ECONOMIC DEVELOPMENT
- STAKEHOLDERS FEEL THAT THE PROGRAM IS NOT ADEQUATELY MARKETED
- GENERALLY, STAKEHOLDERS DID NOT FEEL THAT EXTENSION DUPLICATED OFFERINGS OF OTHER AGENCIES. HOWEVER, OTHER AGENCY STAFF WOULD LIKE TO SEE MORE COOPERATION
- WHERE FURTHER NEEDS ARE PERCEIVED, THEY TEND TO BE IN THE CUSTOMER RELATIONS/CONSUMER IMAGE AREA

Table 7.14 Thematic Observations Based Upon the Interview Summaries for Water Quality in Louisiana

- BOTH QUANTITY AND QUALITY ARE ISSUES
- MOST STAKEHOLDERS ARE COMMITTED TO RESOLVING THESE ISSUES, BUT THERE ARE DIFFERENT PERSPECTIVES ON THE NATURE OF THE PROBLEM
- AGRICULTURE IS HEAVILY INVOLVED IN WATER QUALITY ISSUES
- CONSENSUS THAT THERE ARE CONTAMINANTS TO BE CLEANED AND A LEVEL OF NON-CONTAMINATION TO BE PROTECTED, BUT LACK OF AGREEMENT ON WHAT THE LEVELS ARE/SHOULD BE
- NEED FOR BASELINE DATA AND RESEARCH INTO SOURCES AND TYPES OF SOLUTIONS
- NEED FOR EDUCATION TO CREATE GREATER PUBLIC AWARENESS AND KNOWLEDGE
- POSITIVE ACTIONS ARE BEING TAKEN REGARDING WATER QUALITY/QUANTITY CONCERNS
- MANY AGENCIES ARE AND NEED TO BE INVOLVED; AT THE SAME TIME THERE IS A NEED FOR BETTER COOPERATION AND COORDINATION OF AGENCY EFFORTS
- LCES SHOULD PLAY A KEY ROLE IN EDUCATION AND INFORMATION DISSEMINATION AND A FACILITATIVE ROLE WITH OTHER AGENCIES

Figure 7.3 Summary of Sequence of Steps Involved in Identifying Stakeholders & Their Viewpoints


1. DECIDE ON NATURE OF INTERVIEW
2. DEVELOP/ TAILOR INTERVIEW QUESTIONS
3. DEVELOP LETTER & CONTACT PROCEDURES
4. INITIATE CONTACT PROCEDURES & CONDUCT INTERVIEWS
5. TRANSCRIBE & ORGANIZE INTERVIEW RESULTS
6a. BEFORE GROUP MEETING
6. ANALYZE INTERVIEW RESULTS
6b. DURING GROUP-MEETING
7. CRYPTICALLY SUMMARIZE INTERVIEW RESULTS
8. MAKE THEMATIC OBSERVATIONS
6c. AFTER GROUP MEETING

/

8. Developing Conclusions, Recommendations & Suggesting Next Steps

The final step of the program design process is for the group to identify a set of conclusions, provide a list of recommendations and indicate, if at all possible, what they think the next steps should be. Examples for the HNDP Program, Retail Trade Program and for Water Quality are given in Tables 8.1, 8.2 and 8.3 respectively. There is one recommendation that is an **absolute must** and is made by the facilitator to start off the list. It is: **Provide feedback to those interviewed**. This is an important point that must not be overlooked. Busy people took 20 to 30 minutes of their time to share their thoughts about the topic. The organization is obligated to provide them with some note of thanks for their comments, expressing that the comments were useful and indicating, in a general way, how they were used. To fail to do so would be bad procedure as well as bad public relations. One reaches out to stakeholders to involve them in a constructive manner and often on more than one occasion. [Usually the State contact person will see to it that this gets done.]

It is very common for stakeholders to know less about a topic or program than the design team members thought they did. Consequently, the group may feel that some efforts must be put forth to create an awareness of the organization &/or its involvement in the topic.

Some ideas may occur to the group about new programming topics or efforts in which the organization might be involved. If so, these should certainly be put on the list.

If one recommendation is that the resultant design be carried into the developmental stage then this usually has to be preceded by an executive decision involving the commitment of resources. However, the design may on occasion bypass the developmental stage and move right into the implementation phase. This is likely to occur for a topic in which there is a great deal of past experience or perhaps even a prior program and for which the changes are of a policy nature rather than structural or resource based. For example, in Louisiana's 4-H program design (Richard,R. & E. Johnson) one of the main recommendations involved how advisory groups should be constituted. If the policy decision were made to change the way they were constituted then agents would need some additional training to work with new audiences. However, the overall structure of the program would remain the same.

If at all possible, an executive briefing should be given to the administrator &/or council by the design team. Usually the team will elect one or more spokespersons to make the presentation in their presence.[The facilitator(s) should **not** serve as such since the product is the design team's and ownership should be manifested through their involvement.] This serves a twofold purpose of giving recognition to the team members for their efforts while simultaneously making an impression on administration as to the seriousness and thoroughness of their efforts.

The steps involved in this sequence are summarized in Figure 8.1.

Table 8.1 Conclusions, Recommendations & Next Steps for the HNDP Program

- PROVIDE FREEDBACK TO INTERVIEWEES
- REEXAMINE PROGRAM DELIVERY MECHANISMS & PUBLICATIONS
- A BETTER UNDERSTANDING NEEDS TO BE DEVELOPED BY STAKEHOLDERS OF THE ROLES OF LAND GRANT VIS-A-VIS THE DEPARTMENT OF NATURAL RESOURCES & PERHAPS OTHER AGENCIES TOO
- WHAT WILL THE ENTRY POINTS BE FOR THE HNDP PROGRAM?
- NEED TO IMPROVE THE PUBLIC RECOGNITION OF LAND GRANT & IT'S PROGRAMS INCLUDING HNDP
- WHAT NEEDS TO BE DONE TO GET THE HNDP PROGRAM UP & RUNNING?
  - CONSUMERS-RETAILERS-PRODUCERS?
- USE PILOT AREA FOR INITIATING HNDP PROGRAM
- THE PRIORITIES FOR ECONOMIC DEVELOPMENT IN CNMI ARE NOT CLEAR-THERE IS A NEED TO PROMOTE THE IDEA OF TOURISM-RELATED AGRICULTURE

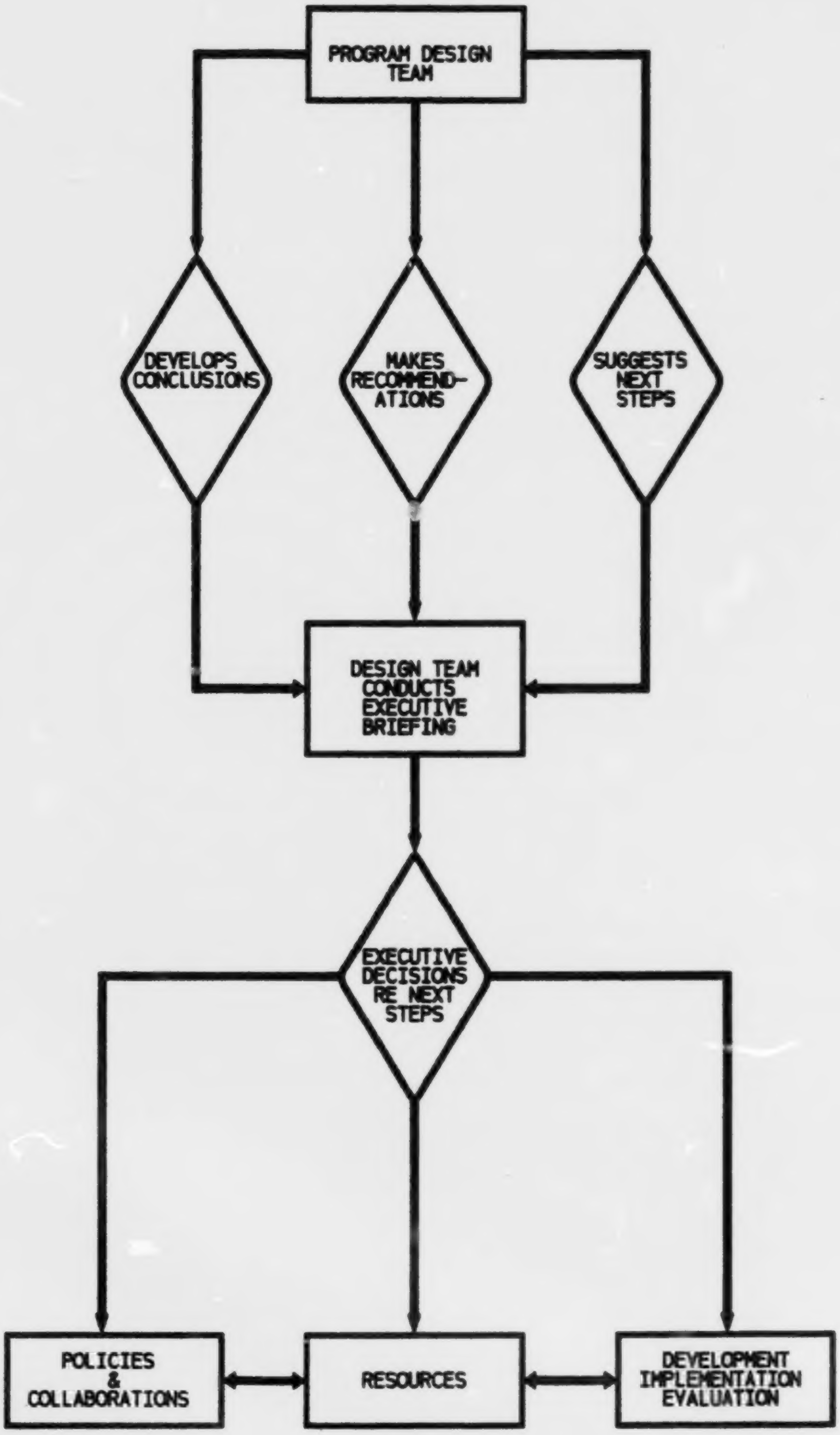
Table 8.2 Conclusions & Recommendations for the Retail Trade Program

- A LOT OF POSITIVE FEEDBACK FROM VERY FEW RESOURCES
- EXTENSION HAS A COMPARATIVE ADVANTAGE IN PROVIDING RESEARCH BASED INFORMATION REGARDING OTHER PROVIDERS
- OPPORTUNITIES EXIST FOR EXPANDING THE PROGRAM IF RESOURCES WERE AVAILABLE:
  - SMALL BUSINESS CREDIT SCHOOL FOR BANKERS
  - FINANCIAL & OPERATING STANDARDS FOR SMALL BUSINESSES
  - DEVELOP A VIDEO TAPE FOR EFFECTIVE MARKETING FOR RETAILERS
  - PACKAGING MARKET POTENTIAL MATERIALS FOR SMALL BUSINESSES
- NEED TO GIVE FEEDBACK TO THOSE INTERVIEWED

Table 8.3 Conclusions, Recommendations & Next Steps for LA's Water Quality

- PROVIDE FEEDBACK TO INTERVIEWEES
- LCES SHOULD DEVELOP AN IDENTIFIABLE WATER QUALITY PROGRAM ALONG THE LINES INDICATED IN THIS REPORT & CONSIDER AS NEXT STEPS:
- BRIEF LCES WATER QUALITY WORKING GROUP REGARDING THESE RESULTS
- LCES WATER QUALITY WORKING GROUP SHOULD:
    - I. PRIORITIZE AUDIENCES & OBJECTIVES
    - II. PREPARE PROPOSALS FOR RESOURCES
- OBTAIN RESOURCES FROM LCES ADMINISTRATION
- FORM TASK GROUPS TO DO DEVELOPMENTAL WORK ON PRIORITIZED OBJECTIVES
- COMPLETE THE ABOVE STEPS IN TIME TO INCORPORATE INTO THE NEW PLAN OF WORK CYCLE
- INITIATE A QUARTERLY NEWSLETTER REGARDING WATER QUALITY EFFORTS IN LA
- CONTINUE IN-HOUSE COMMUNICATION RE LCES ACTIVITIES IN WATER QUALITY

Figure 8.1 Summary of the Sequence of Steps Involved in Developing Conclusions, Making Recommendations and Suggesting Next Steps

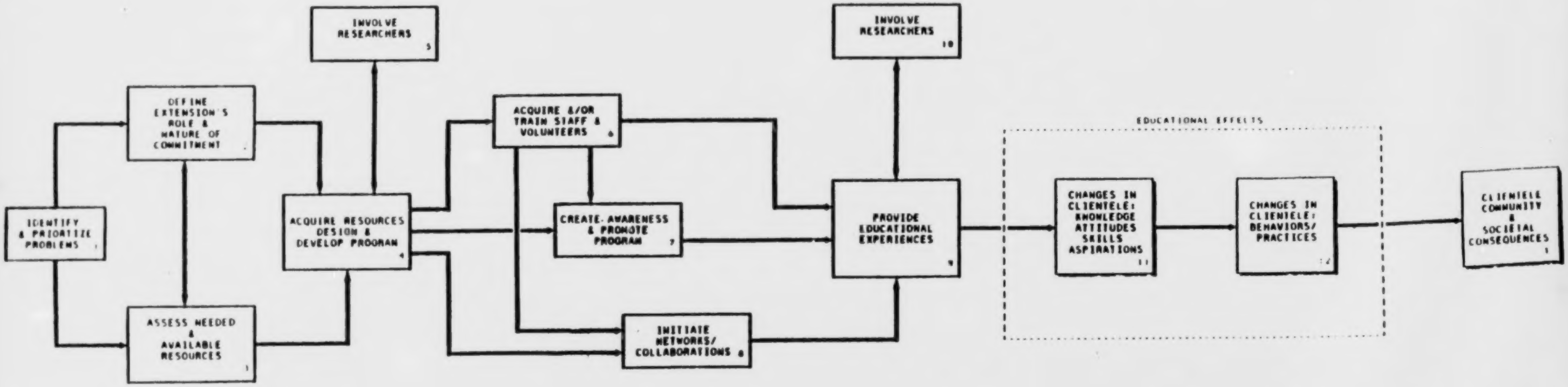

PROGRAM DESIGN TEAM
DEVELOPS CONCLUSIONS
MAKES RECOMMEND-ATIONS
SUGGESTS NEXT STEPS
DESIGN TEAM CONDUCTS EXECUTIVE BRIEFING
EXECUTIVE DECISIONS RE NEXT STEPS
POLICIES & COLLABORATIONS
RESOURCES
DEVELOPMENT IMPLEMENTATION EVALUATION

9. An Illustrative Model for Extension Programming

This chapter presents an illustrative model based upon a synthesis of all of the program design/evaluability assessment work with which the author has been associated in the Cooperative Extension System to date (almost 3 dozen in total). This model can be used as an instructional and programming guide. However, it should **never** be used as a **substitute** for the design team's own best thinking. Figure 9.1 presents the illustrative Program Logic Model based upon this synthesis while Tables 9.1 through 9.13 contain the main events. Tables 9.11 and 9.12 pertain to the generic KASA and B/P entries from Figure 5.3. They also contain generic sources of evidence (indicators) that could be used to gauge their occurrence. Resources have not been specified since they vary so widely depending on the scope, structure and content of the program under consideration. As noted in Chapter 5, resource categories that have been used and then converted to dollar equivalents are: Professional Staff time (in FTE's) of County and State staff and for Specialists; Para-professionals; Volunteers; and, Secretarial Support. Others are: Travel; Equipment/Materials (Acquire/Purchase &/or Develop); and, Overhead. Figure 9.2 presents the illustrative Expanded Program Logic Model with small circles used to depict the occurrence of Barriers or Intervening Events. The numerical entries in each circle give the number of the table in which they can be found (Tables 9.14 through 9.31). Figure 9.3 presents the illustrative Program Logic Model again, this time using small circles and dashed lines to depict the occurrence of Spin-offs.The numerical entries indicate the Table in which they can be found (Table 9.32).

On examination of these figures and tables the reader may observe the following: (1) indicators for activities tend to be primarily administrative documents that flow from the ongoing program while those for effects/consequences often involve some special effort to obtain; (2) effects indicators are often a mixture of sources (e.g staff, other observers, etc.) and methods (e.g. survey, observations, feedback) while activity indicators are primarily source documents or files; (3) barriers are plentiful and this is especially so for KASA and for B/P changes (Tables 9.29 and 9.30, respectively)[Many of these are of a general nature not constrained to the specifics of a particular topic or technology.]; (4) spin-offs are also numerous and especially so for events that involve clientele or staff/volunteers.

In subsequent chapters we regard the illustrative model as our program design and discuss how it might be dealt with in the developmental and implementation phases or cycles.



igure 9.1 Illustrative Program Logic Model for Extension Programming

IDENTIFY & PRIORITIZE PROBLEMS 1
DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT 2
ASSESS NEEDED & AVAILABLE RESOURCES 3
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM 4
INVOLVE RESEARCHERS 5
ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS 6
CREATE AWARENESS & PROMOTE PROGRAM 7
INITIATE NETWORKS/ COLLABORATIONS 8
PROVIDE EDUCATIONAL EXPERIENCES 9
INVOLVE RESEARCHERS 10
EDUCATIONAL EFFECTS
CHANGES IN CLIENTELE: KNOWLEDGE ATTITUDES SKILLS ASPIRATIONS 11
CHANGES IN CLIENTELE: BEHAVIORS/ PRACTICES 12
CLIENTELE COMMUNITY & SOCIETAL CONSEQUENCES 1

Table 9.1. Activities and Indicators for Main Event 1: Identify and Prioritize Problems

IDENTIFY
&
PRIORITIZE
PROBLEMS
1

ACTIVITIES	INDICATORS
• Key influentials/advisory councils identify, articulate and prioritize problems/need(s) with the assistance of Extension staff.	• County activity reports • Council minutes
• Extension gathers information from other sources concerning problem(s)/need(s) (e.g., surveys, informal communications, observations, secondary data analysis, planning committees).	• Data on file
• Extension compiles aggregate information regarding problem(s)/need(s).	• Analysis on file • Plan of work
• Extension and advisory committees interpret results and implications of preceding.	• Analysis on file • Plan of work

Resources:

Table 9.2. Activities and Indicators for Main Event 2: Define Extension's Role and Nature of Commitment

DEFINE
EXTENSION'S
ROLE &
NATURE OF
COMMITMENT

2

ACTIVITIES	INDICATORS
• Extension staff review: (1) Extension mission; (2) Roles of other agencies; and, (3) Identified problem(s)/need(s).	• Minutes of meetings
• Extension staff use information (1-3) to identify those problems/needs to be dealt with.	• Minutes of meetings
• Extension staff describe the parameters of what is needed and determine the appropriate mix of education versus other services.	• Minutes of meetings
• Extension staff determine what is required/mandated and prepare plan.	• Plan on File
• Extension administration reviews and sanctions proposed plan.	• Plan of work

Resources:

Table 9.3. Activities and Indicators for Main Event 3: Assess Needed and Available Resources

ASSESS
NEEDED &
AVAILABLE
RESOURCES
3

ACTIVITIES	INDICATORS
• Extension staff identify: •• Campus-field relationships •• Other agencies-field relationships •• Inventory field staff capacity and capability.	• Activity reports on file
• Extension staff determine availability, accessibility and affordability of other resources (e.g., private industry, government, voluntary organizations, grants and donor agencies, etc.)	• Activity reports on file
• Inventory available materials, review for adequacy, accuracy and adaptability, and estimate developmental needs.	• Activity reports on file • Inventory on file
• Identify team members to design and develop program.	• Memo from director to team members

Resources:

Table 9.4. Activities and Indicators for Main Event 4: Acquire Resources, Design and Develop Program

ACQUIRE RESOURCES, DESIGN & DEVELOP PROGRAM

4

ACTIVITIES	INDICATORS
• Extension provides own funds and/or obtains other funds (e.g., grants, donations, etc.) to support start-up activities.	• Memo authorizing funds.
• Convene design team and determine design specifications including: •• Target audiences, desired results and consequences •• Programmatic steps to be taken •• Problems that may occur and how to deal with them (if possible) •• Unplanned occurrences •• Developmental tasks and needed staff identified.	• Minutes/products of meetings. • Recommendations to administration.
• Administrative approval of design, developmental tasks and staff assignments.	• Memo of approval and assignments.
• Convene development team and initiate tasks: •• Specify objectives and conduct materials review, subject-matter materials.	• Minutes and products of meetings and consultations.

(Table 9.4. continued)

•• Acquire and/or adapt/develop expertise.	
•• Tailor materials/expertise to meet special needs of target audiences (e.g., level of comprehension, time, availability, preferred delivery mechanisms, etc.).	• Products and memos on file (e.g., focus group interview results).
•• Conduct pilot tests and revise accordingly (as applicable).	• Products and memos on file.
•• Develop plan for acquiring and/or training staff.	• Products and memos on file.
•• Develop promotional plan and materials.	• Products and memos on file.
•• Develop plan for networks/coalitions and establish contacts/relationships.	• Products and memos on file.
•• Develop plan for ascertaining and communicating program accomplishments.	• Products and memos on file.
•• Ascertain initial sites for implementation.	• Products and memos on file.
• Obtain administrative approval for implementation.	• Memo of authorization.

Resources:

Table 9.5. **Activities and Indicators for Main Event 5: Involve Researchers**

INVOLVE
RESEARCHERS
5

ACTIVITIES	**INDICATORS**
• Subject-matter researchers participate in design and development in order to bring in their knowledge and perspectives and as a means of identifying needed research.	• Participation in design and development meetings. • Individual consultations with development team members. • Research proposals prepared. • Research proposals approved.

RESOURCES:

Table 9.6. Activities and Indicators for Main Event 6: Acquire and/or Train Staff and Volunteers

ACQUIRE
&/OR
TRAIN STAFF
&
VOLUNTEERS
6

ACTIVITIES	**INDICATORS**
• Obtain applications or expressions of interest.	• Applications/expressions obtained and list on file.
• Determine best qualified through screening of applications/expressions and interviews.	• Interviews conducted and best qualified determined; list on file.
• Make selections and offer invitations/contracts.	• Invitations and agreements made and on file.
• Provide training and/or orientation.	• Activity reports containing information on who, what and when.

RESOURCES:

Table 9.7. Activities and Indicators for Main Event 7: Create Awareness and Promote Program

CREATE
AWARENESS
&
PROMOTE
PROGRAM
7

ACTIVITIES	**INDICATORS**
Make presentations to Extension staff at district meetings and in-service training sessions.	Minutes of meetings and activity reports.
Meet with other state agencies involved to inform them about program.	Minutes of meetings.
Communicate availability and nature of services to targeted audiences, administration and select stakeholder(s) (e.g., presentations to civic organizations, elected officials, interested/concerned groups, etc.).	Activity reports.
Make media releases and disseminate promotional materials.	Media releases and promotional materials on file.
Conduct promotional and recognition events.	Activity reports.

RESOURCES:

Table 9.8. Activities and Indicators for Main Event 8: Initiate Networks/Collaborations

INITIATE
NETWORKS/
COLLABORATIONS
8

ACTIVITIES	INDICATORS
• Contact groups, agencies or organizations to enlist their cooperation in program and obtain commitment.	• Activity reports.
• Negotiate the relative roles and responsibilities of each with respect to one another including staff, funds, etc.	• Minutes of meetings and memoranda of understanding.
• Identify persons and/or products involved, the nature of and schedule for their involvement.	• Memoranda on file.

RESOURCES:

Table 9.9. **Activities and Indicators for Main Event 9: Provide Educational Experiences**

PROVIDE
EDUCATIONAL
EXPERIENCES
9

ACTIVITIES	INDICATORS
• Coordinator (e.g., agent) manages program delivery team(s) (e.g., other Extension professional staff, para-professionals, volunteer leaders, school personnel, community leaders, policy-makers, etc. as appropriate) who perform the following kinds of activities: •• Obtain endorsement and/or co-sponsorship (as appropriate) from community groups. •• Schedule dates for meetings/ workshops/clinics regarding convenience, geographic locale and make facilitative arrangements (e.g., time, speaker, place, equipment.) ••• Make conferencing or other media arrangements as applicable. •• Recruit participants. •• Provide ongoing assistance in recruiting and registration process.	• Activity reports and minutes of meetings.

(Table 9.9. continued)

• Program delivery team(s) provide(s) educational experiences for target audiences including (as appropriate): •• Conduct meetings, workshops, consultations (one-on-one and group, media, etc.). •• Provide literature or other educational materials. •• Make referrals to other sources of assistance. •• Coordinate and communicate activities with staff and cooperating agencies.	• Activity Reports.
• Extension staff determine: •• Efficacy of collaborative and promotional efforts.	• Accomplishment information on file.
•• Efficacy of delivery team(s) effort(s).	• Accomplishment report developed and results disseminated (on file).
•• Ascertain and communicate program accomplishments.	

RESOURCES:

Table 9.10. Activities and Indicators for Main Event 10: Involve Researchers

INVOLVE
RESEARCHERS
10

ACTIVITIES	INDICATORS
• Subject-matter researchers conduct needed research and infuse results into the program.	• Research reports and recommendations.

RESOURCES:

Table 9.11. Effects and Indicators for Main Event 11: Changes in Clientele: Knowledge, Attitudes, Skills and Aspirations

CHANGES IN
CLIENTELE:
KNOWLEDGE,
ATTITUDES, SKILLS,
& ASPIRATIONS

11

EFFECTS	INDICATORS
Knowledge	(As appropriate to the structure of the program and the particular target audience). • Participation in meetings. • Direct and/or indirect feedback from participants and informed observers. • Staff observations. • Extension or other agency reports. • Legislation. • Follow-up survey(s).
Attitudes	
Skills	
Aspirations	

Table 9.12. **Effects and Indicators for Main Event 12: Changes in Clientele: Behaviors/Practices**

CHANGES
IN CLIENTELE:
BEHAVIOR/PRACTICE
CHANGES
12

EFFECTS	INDICATORS
Behaviors/practices changed (including decision to adopt new practice(s)).	Same as Main Event 11 (see Table 11).

Table 9.13. Consequences and Indicators for Main Event 13: Clientele, Community and Societal Consequences

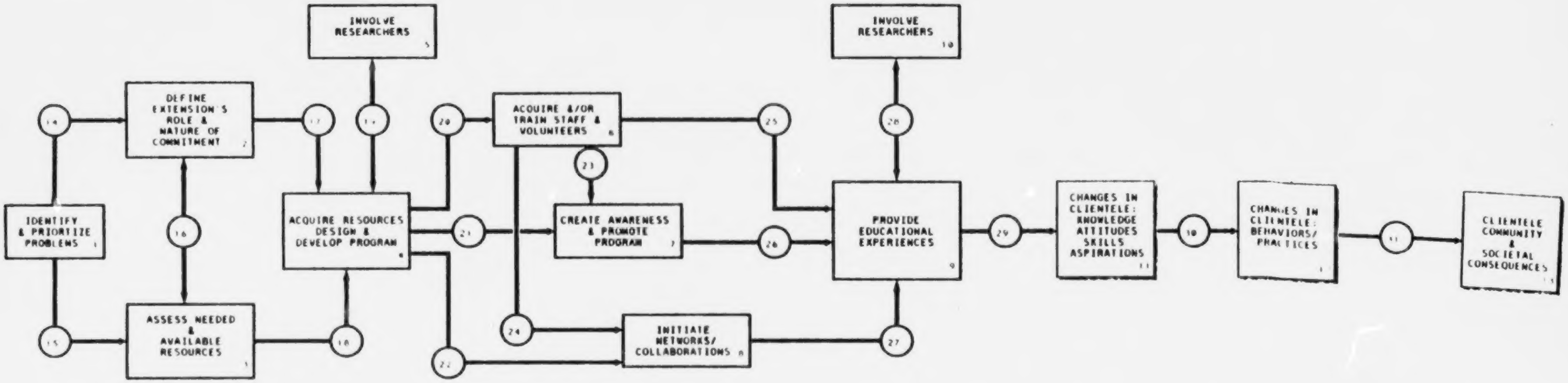
CLIENTELE
COMMUNITY
&
SOCIETAL
CONSEQUENCES
13

CONSEQUENCES	**INDICATORS**
CLIENTELE BENEFITS	
• Personal conditions improve through adoption of recommended practices (e.g., efficiency and effectiveness of operations, nutritional status and and health, quality of family life, environment, financial status, self-esteem, outlook on life, etc).	• Increase in sales and/or profits. • Lower incidence of pathologies. • Lower incidence of child/spouse abuse, dropout, substance abuse, juvenile crime. • Less contaminants in water and food supply. • Restructured and improved management of finances. • Enhanced sense of personal well-being.
COMMUNITY BENEFITS	
• Community conditions improve through the cumulative effects of clientele benefits.	• Increase in number and quality of community leaders; more active citizenry; more empowered community; enhanced economic viability; enhanced sense of community. • Improved local networking; more opportunities and services, less out-migration.

(Table 9.13. continued)

SOCIETAL BENEFITS	
• Societal conditions improve through the cumulative effects of clientele and community benefits (e.g., environment, quality of life).	• Improved living resources (e.g., ground water and lakes). • Greater satisfaction with way of life.

Figure 9.2 Illustrative Expanded Program Logic Model for Extension Programming Depicting Points for Barriers, Barrier Reductions & Intervening Events


IDENTIFY & PRIORITIZE PROBLEMS 1
DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT 2
ASSESS NEEDED & AVAILABLE RESOURCES 3
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM 4
INVOLVE RESEARCHERS 5
ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS 6
CREATE AWARENESS & PROMOTE PROGRAM 7
INITIATE NETWORKS/ COLLABORATIONS 8
PROVIDE EDUCATIONAL EXPERIENCES 9
INVOLVE RESEARCHERS 10
CHANGES IN CLIENTELE: KNOWLEDGE ATTITUDES SKILLS ASPIRATIONS 11
CHANGES IN CLIENTELE: BEHAVIORS/ PRACTICES 12
CLIENTELE COMMUNITY & SOCIETAL CONSEQUENCES 13
14
15
16
17
19
18
20
21
22
23
24
25
26
27
28
29
30
31

THE NUMBER IN EACH CIRCLE REFERS TO THE TABLE IN WHICH THE BARRIERS, BARRIER REDUCTIONS OR INTERVENING EVENTS CAN BE FOUND. INTERVENING EVENTS OCCUR AFTER EDUCATIONAL EFFECTS. TABLES ARE NUMBERED FROM 9.14 THROUGH 9.31

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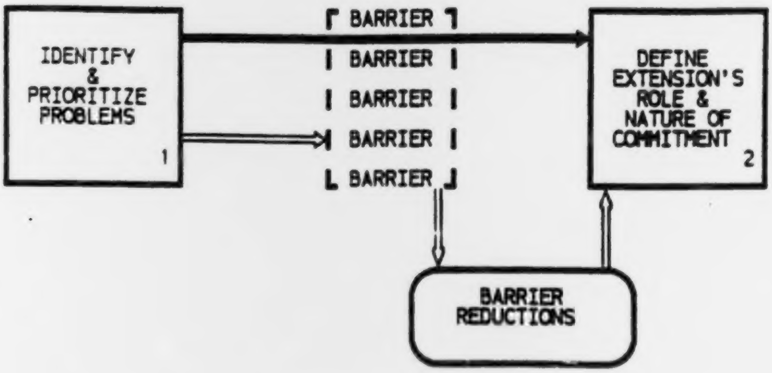
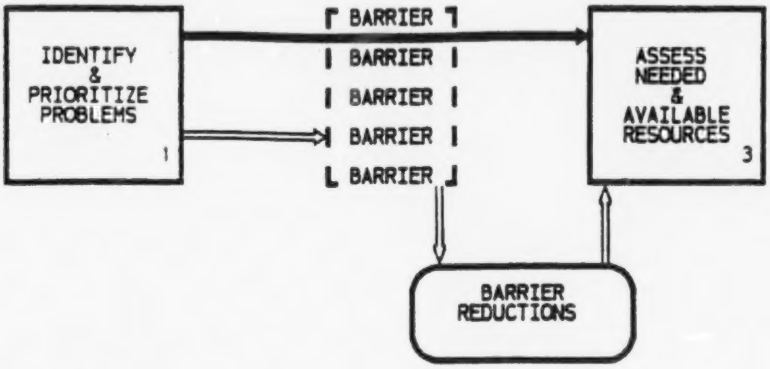
Table 9.14. **Barriers and Reductions for Main Events 1 and 2**


IDENTIFY & PRIORITIZE PROBLEMS
1
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT
2
BARRIER REDUCTIONS

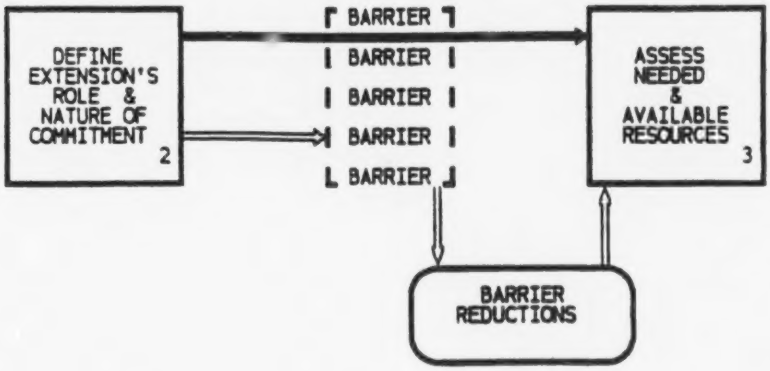
BARRIERS	BARRIER REDUCTIONS
Inadequate problem identification process.	Diversify sources of information/informants/advisors.
Belief that problem or need cannot be redressed.	Test the idea.
Perception of lack of receptiveness on part of potential target audience(s).	Target special needs.
Uncertainty of importance of problem/need.	Identify emerging problems/needs earlier, improve communications, coordination, prioritization within Extension and with cooperating agencies.
Resistance to change in general.	Reduce fear of change through training, staff diversification.
Problem/need not a priority in county/state.	Train councils/committees and agents.
No impetus from administration.	Provide administrative direction.
Extension role not clear to staff/agents.	Provide in-service training.
Agent/staff time constraints.	Plan far enough ahead.
Lack of program development experience in program/topical area.	Allow time for experience to occur.

Table 9.15. Barriers and Reductions for Main Events 1 and 3


IDENTIFY & PRIORITIZE PROBLEMS
1
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
ASSESS NEEDED & AVAILABLE RESOURCES
3
BARRIER REDUCTIONS

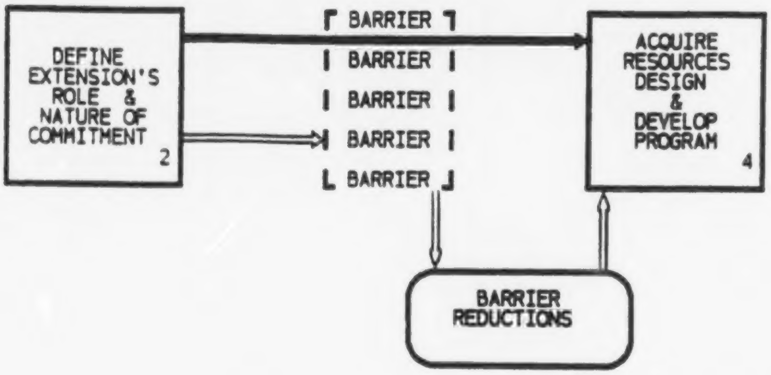
BARRIERS	BARRIER REDUCTIONS
Inadequate problem identification process.	Diversify sources of information/informants/advisors.
Belief that problem or need cannot be redressed.	Test the idea.
Perception of lack of receptiveness on part of potential target audience(s).	Target special needs.
Uncertainty of importance of problem/need.	Identify emerging problems/needs earlier, improve communications, coordination, prioritization within Extension and with cooperating agencies.
Resistance to change in general.	Reduce fear of change through training, staff diversification.
Problem/need not a priority in county/state.	Train councils/committees and agents.
No impetus from administration.	Provide administrative direction.
Extension role not clear to staff/agents.	Provide in-service training.
Agent/staff time constraints.	Plan far enough ahead.
Lack of program development experience in program/topical area.	Allow time for experience to occur.

Table 9.16. Barriers and Reductions for Main Events 2 and 3


DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT
2
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
ASSESS NEEDED & AVAILABLE RESOURCES
3
BARRIER REDUCTIONS

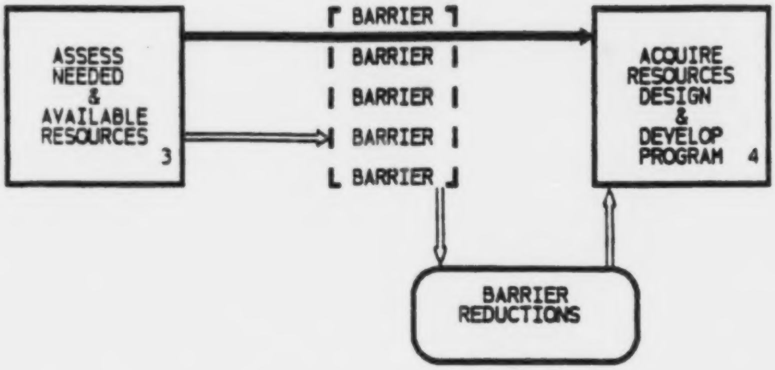
BARRIERS	**BARRIER REDUCTIONS**
Uncertainty of funding.	Obtain temporary funding.
Extension staff and budget constraints.	Develop/seek other resources; use innovative staffing patterns and program delivery methods.
Public perception that Extension does not have a role in the problem/topical area.	Market programs better.
Lack of research base.	Do high priority applied Extension research; communicate research needs to researchers.
Insufficient internal program communication.	Prepare timely program communication material in advance.
Disciplinary and constituent orientation.	Move toward basic academic training in relevant areas or training on the job RE: relevant areas.
Insufficient level of commitment to problem/topical area by decisionmakers.	Continue communication RE: problem/topic/needs.

Table 9.17. Barriers and Reductions for Main Events 2 and 4


DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT
2
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM
4
BARRIER REDUCTIONS

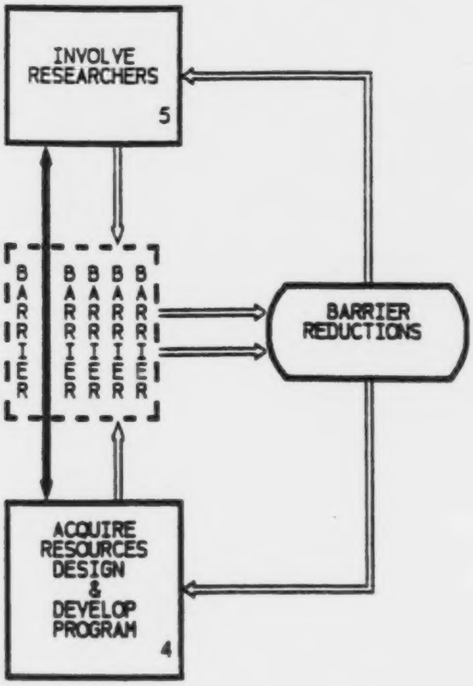
BARRIERS	BARRIER REDUCTIONS
Public perception of Extension.	Market programs better.
Insufficient level of commitment to problem/topical area by decisionmakers.	Continue communication re: problem/topical area.
Extension staff and budget constraints*.	Seek advice regarding availability use innovative staffing patterns and delivery methods; seek more resources or outside funding.
Lack of research base*.	Do high priority applied Extension research; communicate research needs; maintain strong relationships with regional development centers.
Limited knowledge of resource base*.	Provide training; develop resources and directories; make referrals; brainstorm.
Insufficient internal program communication.	Prepare timely program communication materials in advance.
Disciplinary and constituent orientation.	Move toward basic academic training in relevant areas or training on the job re: relevant areas.
Lack of program development experience in problem/topical area*.	Allow time for experience to occur.

Table 9.18. Barriers and Reductions for Main Events 3 and 4


ASSESS NEEDED & AVAILABLE RESOURCES
3
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM
4
BARRIER REDUCTIONS

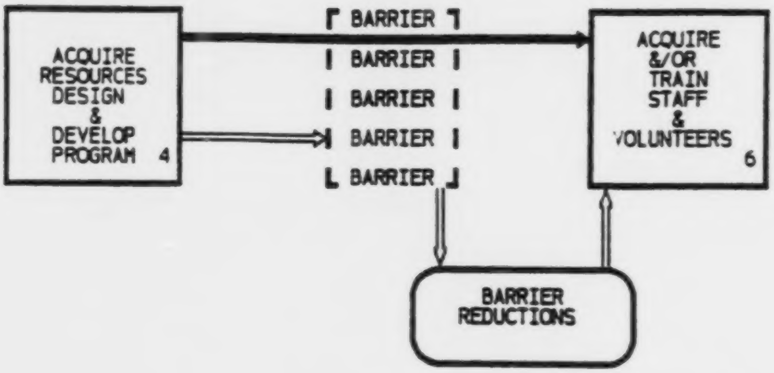
BARRIERS	**BARRIER REDUCTIONS**
See Starred Items Under 2 and 4 in Table 9.17.	

Table 9.19. Barriers and Reductions for Main Events 4 and 5


INVOLVE RESEARCHERS
5
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM
4

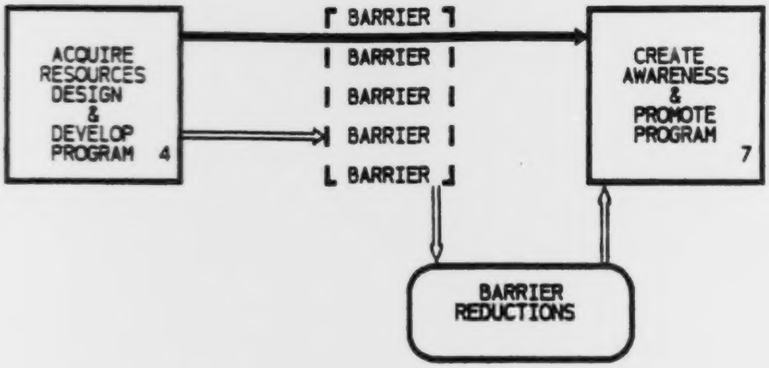
BARRIERS	BARRIER REDUCTIONS
• Problem/topic of little interest or low priority for researchers.	• Increase level of interest/ priority through joint appointments and/or discretionary Extension funding.
• Conflict in orientations to time of Extension versus research.	• Plan for lead times; involve researchers earlier; plan for use of preliminary/interim results.
• Different criteria and standards of performance for Extension vs. research.	• Seek joint appointments and composite standards for pay, promotion and tenure.

Table 9.20. Barriers and Reductions for Main Events 4 and 6


ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM 4
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS 6
BARRIER REDUCTIONS

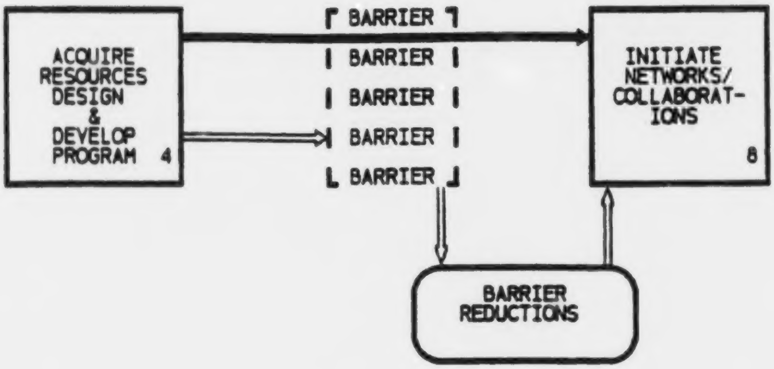
BARRIERS	**BARRIER REDUCTIONS**
Uncertainty of funding.	Seek other sources.
Unavailability of "staff"/ volunteers.	Determine reasons and resolve (e.g., overload compensations, flexible scheduling, network with other knowledgeable people, develop volunteer cadre, recruit volunteers from new sources, etc.).
Lack of means of accessing faculty expertise and interest.	Develop catalog or on-line data base.
Lack of district/county staff "buy-in."	Market to county and district staff.
County staff lack ability and interest in promoting program.	Tailoring program to local needs with agent involvement.
Clientele and agents limiting stereotype of agent's and Extension's role.	Provide personal contact and training, success experiences, communication with other staff; provide training and support in developing recruitment techniques, clientele testimonials; increase emphasis on national initiatives, establish programming units.
Inappropriate selection/ assignment of staff/volunteers.	Reassign responsibilities.
Lack of qualified trainers.	Determine reasons and resolve; invite applicants; train trainers.

Table 9.21. Barriers and Reductions for Main Events 4 and 7


ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM 4
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
CREATE AWARENESS & PROMOTE PROGRAM 7
BARRIER REDUCTIONS

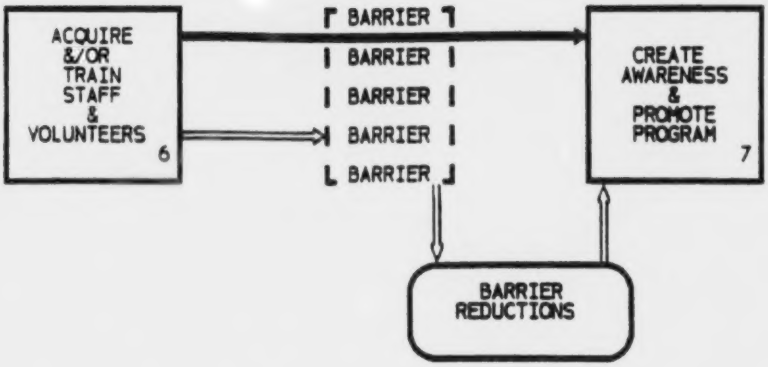
BARRIERS	**BARRIER REDUCTIONS**
Lack of funding at key points in time.	Seek other sources/ resources; reduce efforts.
Unrealistic time lines.	Adjust time lines, overtime, improve planning, reduce offerings.
Staff/volunteer overcommitment.	Delegate, provide overtime, reassign responsibilities.
Lack of access to media.	Use alternative marketing strategies (e.g., direct mail); develop relationship with media.
Lack of promotional expertise.	Provide training, gain access to expertise.
Failure to recognize need for promotional efforts.	Provide training.

Table 9.22. Barriers and Reductions for Main Events 4 and 8


ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM
4
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
INITIATE NETWORKS/ COLLABORAT- IONS
8
BARRIER REDUCTIONS

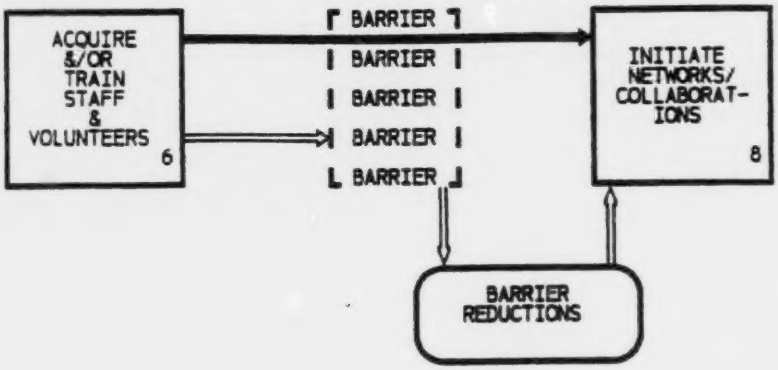
BARRIERS	**BARRIER REDUCTIONS**
Lack of liaison to establish contacts.	Create Liaison.
Resistance of other agencies/ organizations to collaborate in what they regard as "their turf."	Define the niches for each and the necessity for collaboration.
Bureaucratic inertia.	Seek pressure points/ persons to expedite.
Program is low priority for other agencies/organizations.	Seek higher priority endorsements by high level administrators.

Table 9.23. Barriers and Reductions for Main Events 6 and 7


ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS
6
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
CREATE AWARENESS & PROMOTE PROGRAM
7
BARRIER REDUCTIONS

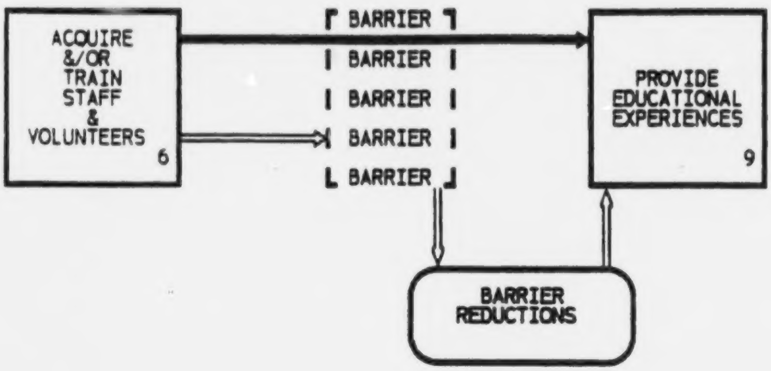
BARRIERS	BARRIER REDUCTIONS
• Lack of funding at key points in time.	• Seek other sources/ resources; reduce efforts.
• Unrealistic time lines.	• Adjust time lines, overtime, improve planning, reduce offerings.
• Staff/volunteer overcommitment.	• Delegate, provide overtime, reassign responsibilities.
• Lack of access to media.	• Use alternative marketing strategies (e.g., direct mail); develop relationship with media.
• Lack of promotional expertise.	• Provide training, gain access to expertise.
• Failure to recognize need for promotional efforts.	• Provide training.

Table 9.24. Barriers and Reductions for Main Events 6 and 8


ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS
6
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
INITIATE NETWORKS/ COLLABORAT-IONS
8
BARRIER REDUCTIONS

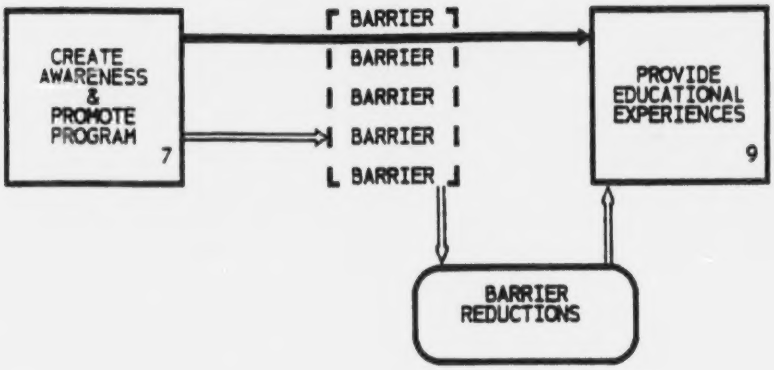
BARRIERS	**BARRIER REDUCTIONS**
Lack of funding at key points in time.	Seek other sources/ resources; reduce efforts.
Unrealistic time lines.	Adjust time lines, overtime, improve planning, reduce offerings.
Staff/volunteer overcommitment.	Delegate, provide overtime, reassign responsibilities.
Lack of access to media.	Use alternative marketing strategies (e.g., direct mail); develop relationship with media.
Lack of promotional expertise.	Provide training, gain access to expertise.
Failure to recognize need for promotional efforts.	Provide training.

Table 9.25. Barriers and Reductions for Main Events 6 and 9


ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS
6
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
PROVIDE EDUCATIONAL EXPERIENCES
9
BARRIER REDUCTIONS

BARRIERS	**BARRIER REDUCTIONS**
• Unrealistic timelines*	• Provide for overtime, readjust expectations.
• Inadequate linkages to other agencies*	• Increase communication with other agencies.
• Lack of local staff "buy-in."	• Provide in-service training, administrative endorsement.
• Unresponsiveness of state specialists.	• Improve staff communications.
• Discrepancy between local need and program resources.	• Reallocate resources or find alternatives.
• Lack of local community "buy-in."	• Redefine need, improve marketing effort.
• Time lag between development and implementation.*	• Change program development process, design alternative delivery methods.
• Diversion of staff resources due to crisis**	• Design alternative methods, seek outside resources.
• Insufficient enrollment/attendance*	• Improve marketing, problem/needs assessment and scheduling.
• Bad weather*	• Change delivery mode, reschedule.

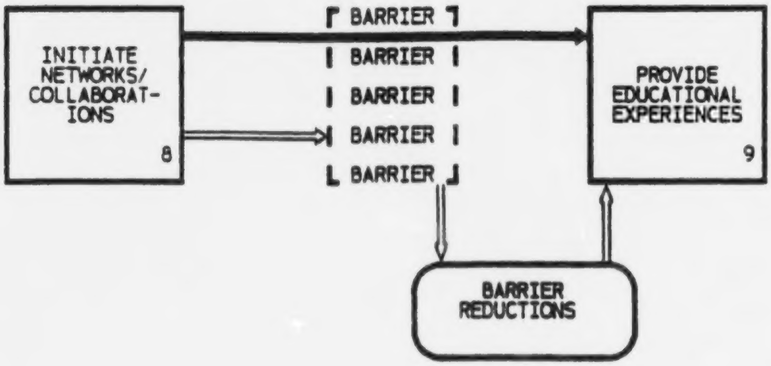
Table 9.26. Barriers and Reductions for Main Events 7 and 9


CREATE AWARENESS & PROMOTE PROGRAM
7
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
PROVIDE EDUCATIONAL EXPERIENCES
9
BARRIER REDUCTIONS

BARRIERS	**BARRIER REDUCTIONS**
• Public apathy/alienation.	• Diagnose causes and develop remedies.
• Vested interest in status quo.	• Educate individuals/ communities regarding topical area.
• Individuals'/communities' resistance to change.	• Educate individuals/ communities regarding topical area.

See also the single starred items in 6 to 9 in Table 25.

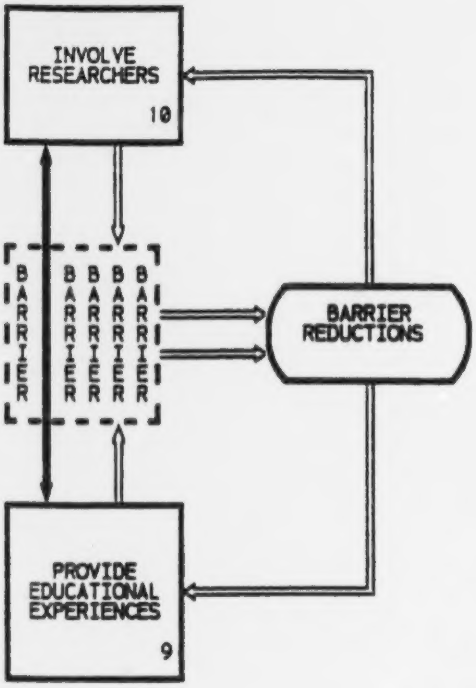
Table 9.27. Barriers and Reductions for Main Events 8 and 9


INITIATE NETWORKS/ COLLABORAT-IONS
8
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
PROVIDE EDUCATIONAL EXPERIENCES
9
BARRIER REDUCTIONS

BARRIERS	**BARRIER REDUCTIONS**

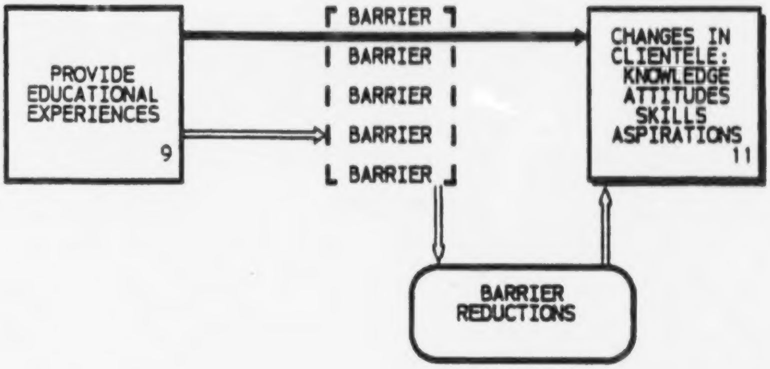
See the single and double starred items in 6 to 9 in Table 25.

Table 9.28. Barriers and Reductions for Main Events 9 and 10


INVOLVE RESEARCHERS
10
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER REDUCTIONS
PROVIDE EDUCATIONAL EXPERIENCES
9

BARRIERS	**BARRIER REDUCTIONS**
• Problem/topic of little interest or low priority for researchers.	• Increase level of interest/ priority through joint appointments and/or discretionary Extension funding.
• Conflict in orientation to time of Extension versus research.	• Plan for lead times; to involve researchers earlier; plan for use of preliminary/interim results.
• Different criteria and standards of performance for Extension vs. research.	• Seek joint appointments and composite standards for pay, promotion and tenure.

Table 9.29. Barriers and Reductions for Main Events 9 and 11

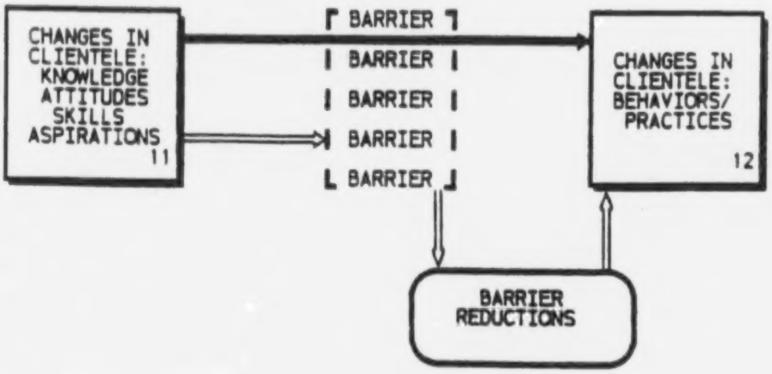

PROVIDE EDUCATIONAL EXPERIENCES
9
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
CHANGES IN CLIENTELE: KNOWLEDGE ATTITUDES SKILLS ASPIRATIONS
11
BARRIER REDUCTIONS

BARRIERS	BARRIER REDUCTIONS
• Limited attendance.	• Use endorsement and incentives, give greater emphasis to personal benefits.
• Discrepancy between client expectations and program content.	• Pre-survey to determine expectations; give more complete explanation of content.
• Denial of the nature of the problem, feeling of not in control of destiny.	• Portray problem as opportunity; use successful examples as role models; recognize past accomplishments; set achievable short-term goals; recognize time required to address problem; set priorities.
• Failure to accept responsibilities for problem/decisions.	• Emphasize need to accept responsibility.
• Unrealistic expectations.	• Convey realistic expectations (time required, use successful examples).
• Self-service selection results in wrong program.	• Learn more regarding participants beforehand; give more detail on nature of problem.
• Lack of active participation.	• Reorganize materials; use more exercises, alternate delivery modes.

Table 9.29. (continued)

• Insufficient exposure.	• Use alternate delivery modes (e.g., tapes, news letters, group discussions).
• Inappropriate mode of delivery.	• Evaluate and follow-up; use different mode(s).
• Poor instruction.	• Improve screening, training, and materials development.
• Poor instructional environment, curricular short comings.	• Improve planning and control; evaluate and follow-up; improve understanding of learners; assess participants needs, train staff/volunteers to deal with hostile environment.

Table 9.30. Barriers and Reductions for Main Events 11 and 12

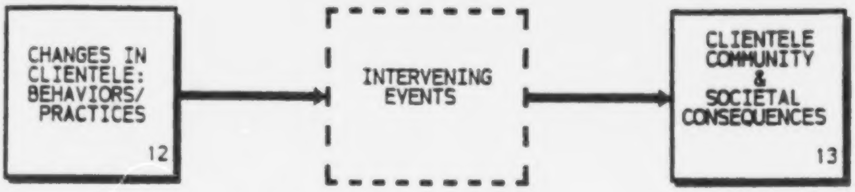

CHANGES IN CLIENTELE: KNOWLEDGE ATTITUDES SKILLS ASPIRATIONS
11
BARRIER
BARRIER
BARRIER
BARRIER
BARRIER
CHANGES IN CLIENTELE: BEHAVIORS/ PRACTICES
12
BARRIER REDUCTIONS

BARRIERS	**BARRIER REDUCTIONS**
Adherence to perceived norms, tradition.	Change perceptions, provide support/networks for new ways of thinking.
Resistance to change.	Change perceptions, provide support/networks for new ways of thinking.
Attitude that "it won't work with me/us--I/we are different."	Use successful examples; establish networks; involve nay sayers; provide individualized attention.
Feelings of apathy, lack of desire to change.	Use succesful examples and reinforce benefits of change.
Lack of motivation.	Use successful examples; emphasize smaller successes and personal benefits.
Peer pressure against change.	Obtain endorsements; use successful examples; mobilize positive forces (e.g., create a group to support change).
Incomplete learning process.	Evaluate and modify curriculum; follow-up.
Lack of individual empowerment.	Create support network.
Different individual time frames for change.	Allow for it but follow-up with participants.
Preoccupation with day-to-day operations.	Emphasize benefits from changing; restructure perceptual habits.

Table 9.30. (continued)

• Insufficient priority.	• Use peer pressure (e.g., bandwagon effect).
• Resource limitations.	• Help explore alternatives and set priorities.
• Difficulty in obtaining risk capital (if applicable).	• Develop legal support; form risk capital pools.
• Fear of risk-taking.	• Use successful examples; help evaluate risk/benefit realistically.
• Perceived risks exceed benefits.	• Use successful examples; help evaluate risk/benefit realistically.
• Lack of technical and personal support.	• Provide individualized attention and follow-up.
• Local, state and Federal regulations (as applicable).	• Seek revisions or exceptions.
• Lack of community loyalty (if applicable).	• Provide support for leadership development.
• Shrinking demand for products or services (if applicable).	• Identify and focus on market niche.

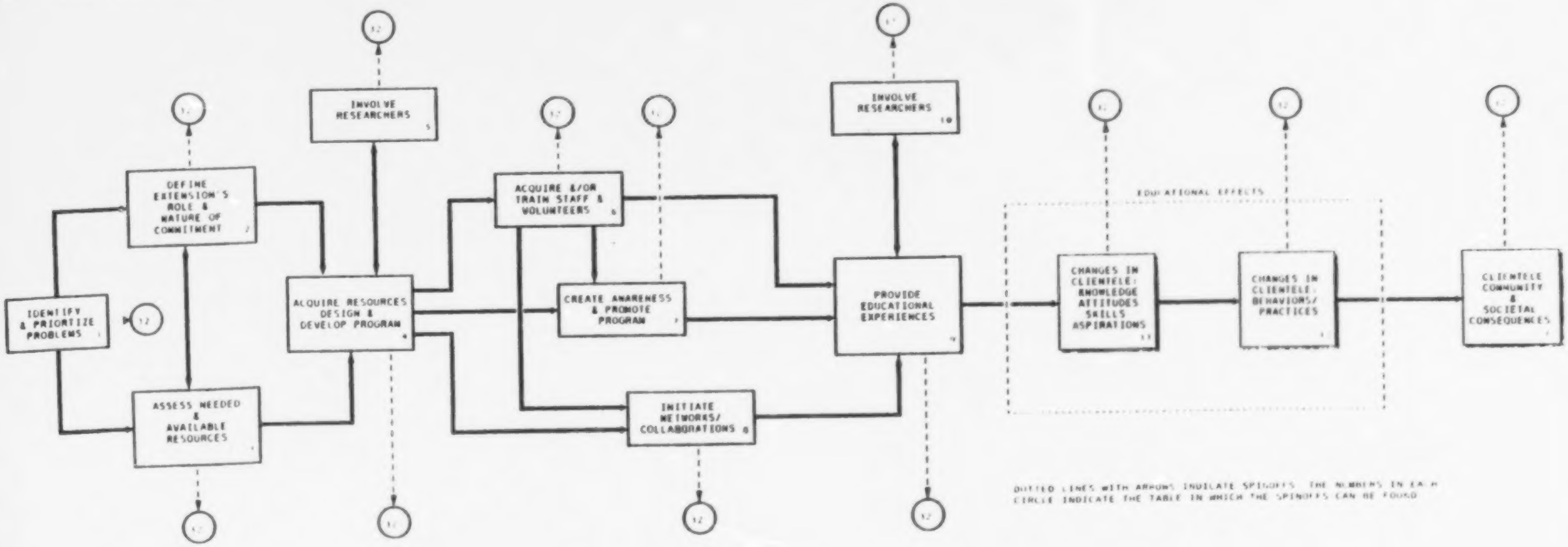
Table 9.31. Intervening Events for Main Events 12 and 13


CHANGES IN CLIENTELE: BEHAVIORS/ PRACTICES
12
INTERVENING EVENTS
CLIENTELE COMMUNITY & SOCIETAL CONSEQUENCES
13

INTERVENING EVENTS
(As Applicable)

- Adverse weather conditions and natural disasters
- Changes in interest rates
- Boycotts
- Changes in public policies (e.g., farm programs) or government regulations
- Increased or new competition
- Loss of major industry, business or institution
- Changes in transportation routes or methods
- Bank failure(s)
- Loss of population
- Environmental constraints
- Loss of essential community services
- Inventory loss to theft or damage
- Changes in consumer behaviors
- Life style changes
- Fluctuations in local economy
- Adverse environmental effects
- Lack of community recognition of benefits

igure 9.3 Illustrative Program Logic Model for Extension Programming Depicting Spinoffs


IDENTIFY & PRIORTIZE PROBLEMS
12
DEFINE EXTENSION'S ROLE & NATURE OF COMMITMENT 2
ASSESS NEEDED & AVAILABLE RESOURCES
INVOLVE RESEARCHERS 5
ACQUIRE RESOURCES DESIGN & DEVELOP PROGRAM 4
ACQUIRE &/OR TRAIN STAFF & VOLUNTEERS 6
CREATE AWARENESS & PROMOTE PROGRAM 7
INITIATE NETWORKS/ COLLABORATIONS 8
12
INVOLVE RESEARCHERS 10
PROVIDE EDUCATIONAL EXPERIENCES 9
12
EDUCATIONAL EFFECTS
CHANGES IN CLIENTELE: KNOWLEDGE ATTITUDES SKILLS ASPIRATIONS 11
CHANGES IN CLIENTELE: BEHAVIORS/ PRACTICES
CLIENTELE COMMUNITY & SOCIETAL CONSEQUENCES

DOTTED LINES WITH ARROWS INDICATE SPINOFFS. THE NUMBERS IN EACH CIRCLE INDICATE THE TABLE IN WHICH THE SPINOFFS CAN BE FOUND

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Table 9.32 Spin-offs from the Main Events in the Program Logic Model

Spin-offs/Main Events	1. IDENTIFY & PRIORITIZE PROBLEMS	2. DETERMINE ROLE OF EXTENSION	3. ASSESS RE SOURCES	4. DESIGN & DEVELOP	5. INVOLVE RESEAR-CHERS	6. TRAIN STAFF& VOLNTR'S	7. CREATE AWARENESS & PROMOTE	8. INITIATE NETWRK'S/ COLLABRTN'S	9. PROVIDE EDUCTN'L EXPERNC'S	10. INVOLVE RESEAR-CHERS	11.-12. EDUCAT-IONAL EFFECTS	13. CONSEQ-UENCES
GENERATE COMMITMENT OF LOCALS TO EXTENSION	*					*			*		*	*
CONFLICT WITH OTHER GROUPS INVOLVED IN PROBLEM/TOPIC		*										
PERSONAL GROWTH RE SUBJECT MATTER KNOWLEDGE/SKILLS & SELF-CONFIDENCE						*			*			
IMPROVED PERSONAL PRACTICES (AS APPLICABLE)						*			*			
INCREASED TIME MANAGEMENT PROBLEMS (AS APPLICABLE)						*			*			
ENHANCED PROFESSIONAL REPUTATION						*			*			
GREATER RECOGNITION OF EXT.'S ROLE IN PROBLEM/TOPIC BY PUBLIC & OTHER GOV'T AGENCIES							*	*				
UNREALISTIC EXPECTATIONS OF WHAT EXT. CAN DO							*					
CREATED/ENHANCED RELATIONSHIPS WITH OTHER AGENCIES/UNITS					*		*			*		
COMMUNITY NETWORKING								*	*			
AGENT ORIENTATION TO WORK ON TOPIC						*			*			
INTERDISCIPLINARY TEAMWORK FOSTERED				*	*				*	*		
EXPERTISE & ABILITY TO DELIVER PROGRAMS TO NON-TRADITIONAL AUDIENCES DEMONSTRATED (AS APPLICABLE)									*			
NEW STAKEHOLDERS & SUPPORTERS DEVELOPED					*			*	*	*	*	*
EXT. SEEN AS A STRONGER PARTNER BY SOME COOPERATING AGENCIES & AS A RIVAL BY OTHERS							*	*	*			
COMPETING PROGRAMS DEVELOPED BY OTHER AGENCIES									*			
INCREASED FEELINGS OF INDIVIDUAL EMPOWERMENT											*	
FEELING OF SUCCESS & POSITIVE ENVIRONMENT											*	
COMMUNITY ATTRACTIVENESS INCREASED (AS APPLICABLE)											*	*
ADDITIONAL EDUCATION SOUGHT BY CLIENTS											*	
SOCIAL NETWORKS FORMED											*	
RECOGNITION OF NEED FOR PROGRAM BY CLIENTS & STAKEHOLDERS											*	
SUPPORT FOR EXT. INCREASED											*	*
CHANGE IN PERSPECTIVE TO "CAN-DO"												*
PROGRAM PROVIDERS SERVE AS ROLE MODELS FOR CLIENTELE									*			
MULTIPLIER EFFECTS (GROWTH IN RELATED AREAS)												*

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Table 9.32 (continued)

Spin-offs/Main Events	1. IDENTIFY & PRIORITIZE PROBLEMS	2. DETERMINE ROLE OF EXTENSION	3. ASSESS RE-SOURCES	4. DESIGN & DEVELOP	5. INVOLVE RESEARCHERS	6. TRAIN STAFF & VOLNTR'S	7. CREATE AWARENESS & PROMOTE	8. INITIATE NETWRK'S/ COLLABRTN'S	9. PROVIDE EDUCTN'L EXPERNC'S	10. INVOLVE RESEARCHERS	11-12. EDUCATIONAL EFFECTS	13. CONSEQUENCES
SUCCESSES SERVE AS ROLE MODELS FOR OTHERS											*	*
EFFICIENCY OF DIFFERENT APPROACHES IS DEMONSTRATED ON A LIMITED SCALE												*
UNREALIZED EXPECTATIONS GIVE RISE TO NEGATIVE FEELINGS RE EXT.									*		*	*
INCREASED SENSE OF PRIDE IN OWN &/OR COMMUNITY ACCOMPLISHMEMNTS											*	*
MORE POTENTIAL VOLUNTEERS											*	*
MORE DEMAND FOR SERVICES											*	*
STRESS ASSOCIATED WITH CHANGES MAY INCREASE											*	*

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10. Developing the Program

In this chapter we carry the illustrative program design from the preceding chapter into a developmental phase. Five modules and their tasks are identified in order to develop the educational experiences with their supporting materials, staff, recruitment and marketing efforts. A final task integrates the results of these efforts.

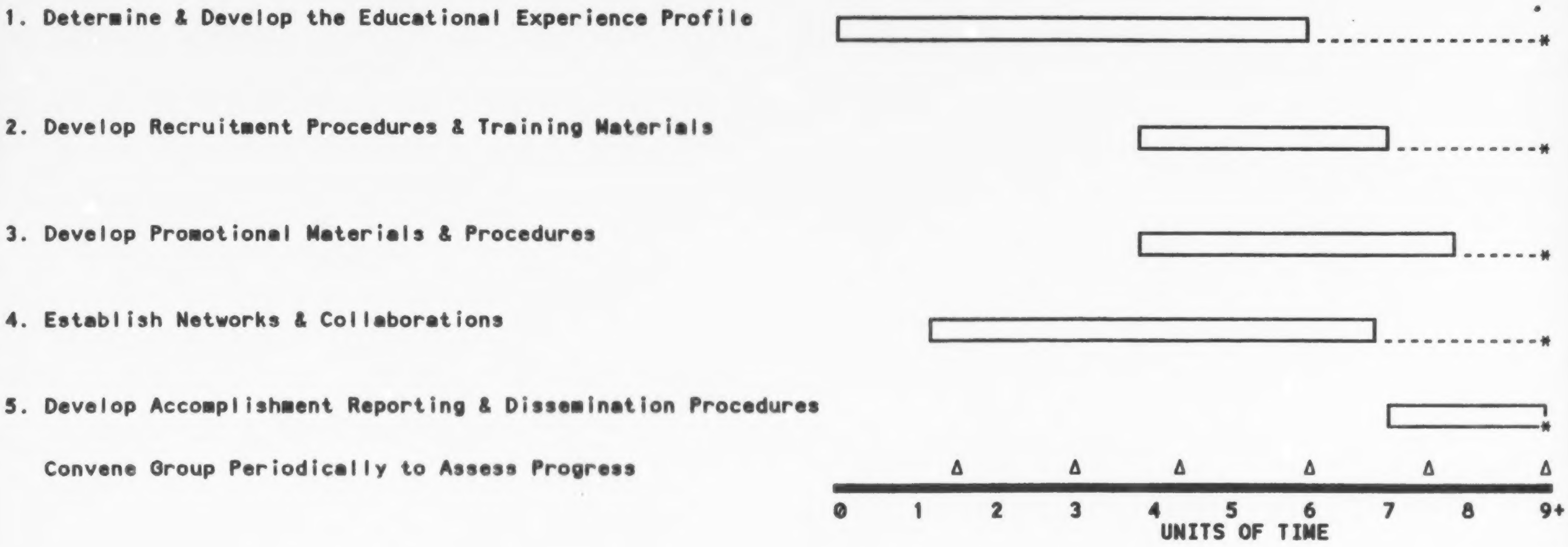
10.1 Tasking the Developmental Modules, Designating Timelines and Responsibilities

There are five modules to be developed in this cycle or stage which follow directly from the illustrative program of the preceding chapter. The major module on which all others are dependent is the one which determines what the Educational Experience Profile will be. [This involves main event 9 in Figure 9.1 and Table 9.9 of the illustrative program.] Only when it is clear what the structure and some of the content of this module will be, can developmental work begin on the other four modules of: acquire and train staff; create awareness and promote program; initiate networks and collaborations; and, identify and communicate the accomplishments of the program. Of these latter, work should probably begin earliest on the network and collaborations module and last, on the accomplishment module. The dependencies among these modules are illustrated in Figure 10.1. Of course, for any actual program these dependencies may differ somewhat.

We may recall from the previous chapter that some participants from the design stage also participate as members of the development team. In effect, they serve as **linkage experts** to work done earlier. Added to this core are others who bring specialized skills and expertise to the developmental stage. Some of them may be from other organizations or agencies. The question is how relationships among members of this group should be structured so as to optimize their functioning. We suggest that one person have the responsibility of coordinating the group's efforts and reporting to the administration periodically on their progress. In addition, that this person be vested with some authority over the work that the group performs but that a major point not be made of this since the desire is to maintain harmonious and collegial relationships. It is also recommended that a facilitator be used, especially early on to help articulate the tasks, timelines and responsibilities. Again, it is desirable that this person be a third party to the process and have some evaluation/research training. S/he may be the same facilitator as from the design phase. In effect, the group may be thought of as engaging in a mini-design for the developmental cycle. The group may also be thought of as **the Life Cycle Guidance Team** for this phase of the program. A prototype agenda for their initial meetings might appear as in Table 10.1.

In the first activity on the agenda it is anticipated that those members who participated in the design phase would play a key role in helping to explain to the newcomers the various concepts and nature of what was accomplished in the design phase. Of course, if the facilitator participated in the design phase then s/he can also play an important role in this orientation process. First, the target audiences are grouped into fairly homogeneous sub-groups based upon the similarity of their KASAB's. Although there is

Figure 10.1 Dependencies Among the Developmental Modules

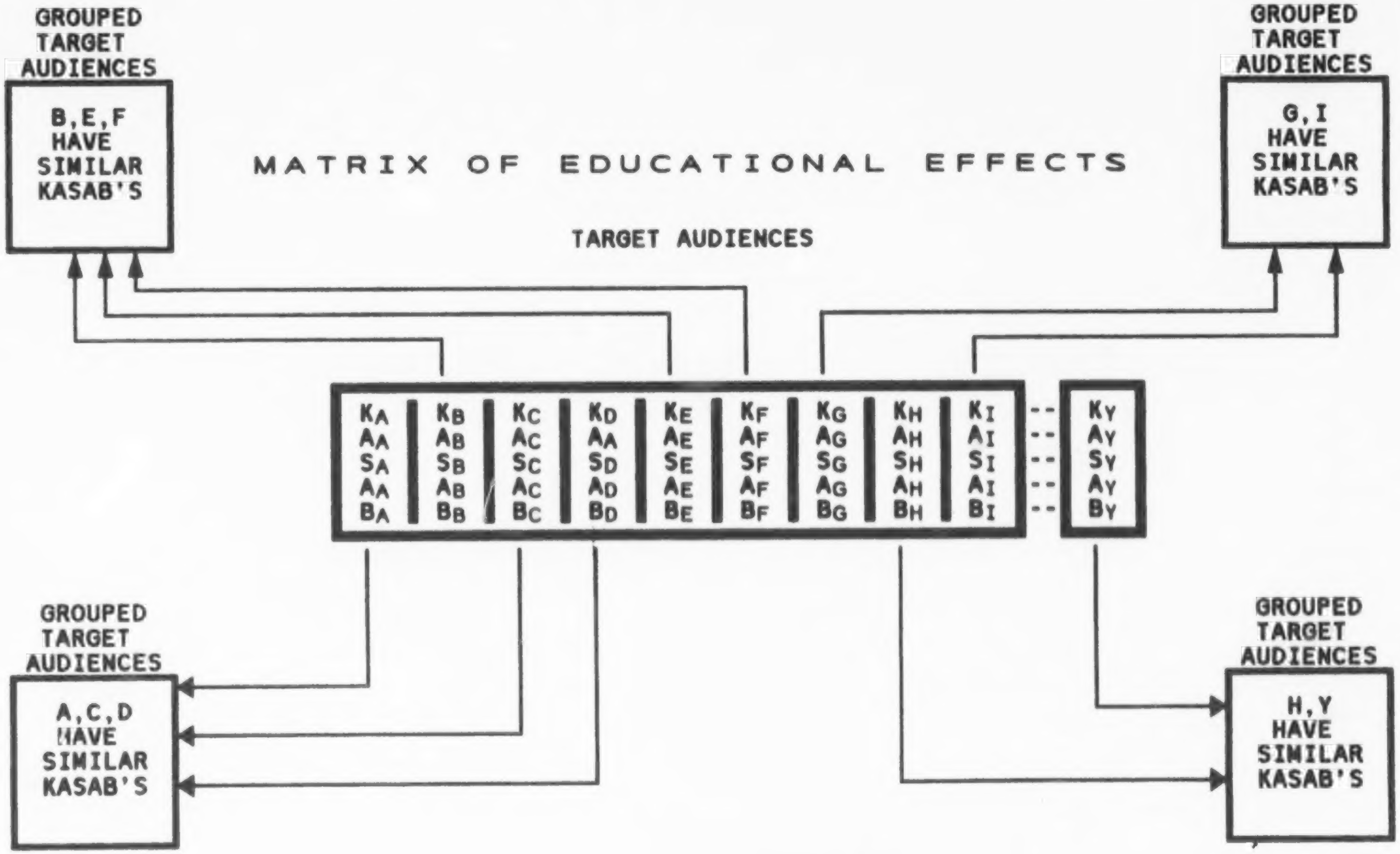


*Denotes the Final Developmental Task: Integrate & Finalize the Products & Processes

Table 10.1 Prototype Agenda for the Development of Program XYZ in a One to Two Day Work Session

%TIME (APPROXIMATE)	#	ACTIVITY
20	1	REVIEW DESIGN RESULTS
45	2	DETERMINE THE EDUCATIONAL EXPERIENCE PROFILE(EEP): A FACET APPROACH - GROUP TARGET AUDIENCES' KASAB'S - REVIEW OF A FACET APPROACH TO PROGRAM DEVELOPMENT - SPECIFYING THE EEP IN TERMS OF THE FACETS - DETERMINE CLIENT PROBLEM SOLVING STEPS &/OR FOCUS GROUPS TO FORMULATE &/OR CHOOSE AMONG ALTERNATIVES - DESIGNATE TASKS & TIMELINES FOR THE EEP MODULE
30	3	DESIGNATE TASKS & TIMELINES FOR THE OTHER MODULES OF: - DEVELOP RECRUITMENT PROCEDURES & TRAINING MATERIALS - DEVELOP PROMOTIONAL MATERIALS & PROCEDURES - ESTABLISH NETWORKS & COLLABORATIONS - DEVELOP ACCOMPLISHMENT REPORTING & DISSEMINATION PROCEDURES
5	4	MAKE PLANS FOR SUBSEQUENT MEETINGS TO REVIEW & REPORT ON PROGRESS

Figure 10.2 Grouping the Target Audiences from the Matrix of Educational Effects by the Similarity of their KASAB's


GROUPED TARGET AUDIENCES
B,E,F HAVE SIMILAR KASAB'S
MATRIX OF EDUCATIONAL EFFECTS
GROUPED TARGET AUDIENCES
G,I HAVE SIMILAR KASAB'S
TARGET AUDIENCES
K_A A_A S_A A_A B_A
K_B A_B S_B A_B B_B
K_C A_C S_C A_C B_C
K_D A_A S_D A_D B_D
K_E A_E S_E A_E B_E
K_F A_F S_F A_F B_F
K_G A_G S_G A_G B_G
K_H A_H S_H A_H B_H
K_I A_I S_I A_I B_I
K_Y A_Y S_Y A_Y B_Y
GROUPED TARGET AUDIENCES
A,C,D HAVE SIMILAR KASAB'S
GROUPED TARGET AUDIENCES
H,Y HAVE SIMILAR KASAB'S

K - KNOWLEDGE
A - ATTITUDES
S - SKILLS
A - ASPIRATIONS
B - BEHAVIORS/ PRACTICES

- **Content**

The development team may obtain guidance of a general nature from the Matrix of Educational Effects concerning what the content of the program should be. Further specification of these effects may be necessary in order to guide the development of new materials or the selection and/or adaptation from those already available. Such materials can be thought of as being developed or adapted in the following three ways: (1) a standard or **uniform** approach in which the materials are to be used in the same manner whenever or wherever the program is carried out; (2) a **modular** approach in which different parts or modules can be used in different combinations as appropriate to the circumstances; (3) a **modular** approach **with explicit** provisions for **tailoring** them to meet the needs of a particular target audience or locale. **Tailoring** can occur by **incorporating** indigenous persons or examples into the modules or by **augmenting** the modules with local concerns (e.g., interpretations by discussion groups or prominent persons as to how this affects us and why it is important for us). Both kinds of **tailoring** are possible for any given module.

- **Time**

Time or the temporal aspects of program development (Kelly and McGrath, 1988) focus on the presumed nature of the learning or proficiency acquisition curve and deal with such questions as: (1) what should the learning experiences be; (2) how frequently should they be provided; (3) how long should they last singly and/or in combination; (4) how are they best put in sequence; (5) how much time elapses between the learning experiences and the anticipated behavior change or their consequences; and, (6) can reinforcing experiences be provided to support and sustain the acquisitions that have been made for this intervening period of time, if it is very long?

Some of the preceding questions imply that a progression model could be developed of the stages that typical members of the target audience go through in acquiring the KASAB's for their problem-solving needs (Boone, 1985; Smith, 1989a; Van den Ban and Hawkins, 1988). This idea is pursued further in Chapter 14.

- **Context**

The context in which or through which a learning experience takes place can vary widely and may be thought of as involving three main categories: (1) the **mechanisms** involved to deliver the program; (2) the **means** by which or through which they are used; and, (3) the **settings** in which they take place. Examples of each category are given in Table 10.2. These examples are meant to be illustrative rather than exhaustive. They do serve to illustrate the large number of combinations that are possible. Reiser & Gagne' (1983) speculate that the lack of evidence concerning the differential effectiveness of different delivery mechanisms may be due to their not being chosen on the basis of how well they would contribute to a given set of learning objectives. They show how the extremely large number of combinations, such as those given in Table 10.2, can be reduced dramatically by a sequential selection process and they provide an algorithm for doing so.

some subjectivity in these judgments they have to be made in order to reduce the sheer number of groups involved and introduce some economies into the developmental phase. Of course, if there are very few target groups and they are distinctly different then such a grouping may not be necessary nor even desirable. Next, a facet conceptualization of program development is reviewed. Then, the group starts detailing tasks for the development of the Educational Experience Profile (EEP) and their implications for the tasks of the other modules. Finally, dates for next meetings to review and report on accomplishments are set.

10.2 Determining The Educational Experience Profile: A Facet Approach

For non-formal educational programs such as those dealt with by Cooperative Extension, the developmental phase of a program will usually focus on what are often called the delivery mechanisms and curricular materials to be used in reaching different target audiences. For any program development phase there are at least four facets which play back and forth on one another as the developmental phase unfolds. They are: (1) the **resources** available to carry out the program; (2) the **content** of the curriculum or curricular material; (3) the **temporal** aspects such as in what order the sequence of learning experiences will be provided, for how long and how often and, how much time will elapse between these experiences and the hoped for behavior changes or their consequences; (4) the **context** in which or through which these learning experiences will take place. The latter are sometimes referred to as "methods" although they really embrace a wide range of alternatives from the physical aspects of a learning experience through the people aspects to the organizational aspects--we shall have much more to say about these later. These four interdependent facets carried to completion for a given target audience's (or group of audience's) KASAB's are called **the educational experience profile** (EEP). Some aspects of the profile will have been indicated in the design phase; however, their detailed specification doesn't really take form until the developmental phase.

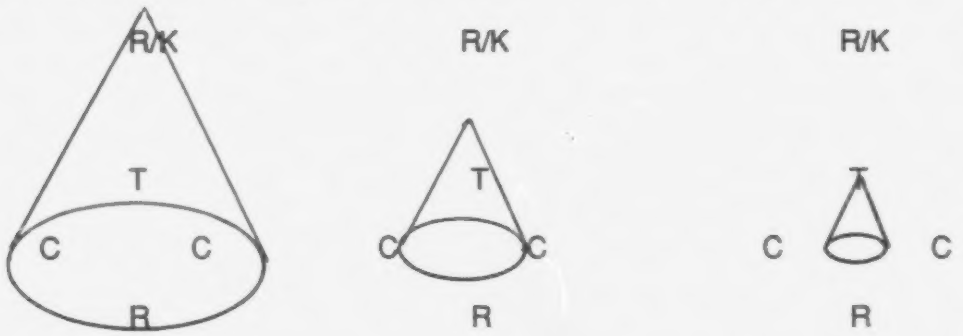
o Resources

Decisions made in the developmental phase can dramatically affect the costs of the implementation phase. Hence, it is not unusual to hear development team members articulate the interplay by saying "going that route would be too expensive later on so we had better find another, less costly alternative." The referent can be anything from promotional materials or equipment needed to staff considerations. Of course, the team can always specify different levels of effort for the implementation phase or an incremental phasing in of the program. Alternatively, they can even postpone aspects of the developmental phase until certain events or components of the program are phased in. However, the latter usually runs the risk of other circumstances overtaking these efforts and the program never seeing the "light of day." For our purposes we shall assume that all of the developmental work will be completed before the implementation phase is begun.

In Table 10.2 Folk Media involve the use of itinerant actors, singers or storytellers (Van den Ban and Hawkins, 1988) while Campaigns were used in the early years of Extension work in particular (Rasmussen, 1989; Mayberry,1990) wherein local staff lay the groundwork for a visit by a campaign team, the campaign is conducted and the momentum is initiated by the team, with follow-up provided by local staff. Extensive information on volunteer programs and how to form them can be found in Steele et. al (1989). If time permits and the team is interested they can enumerate their own specialized lists such as done by Jones (1992) for critical thinking.

o Research/Knowledge Base

A facet of program development that is not generally recognized or utilized is the explicit use of a research/knowledge base to guide the myriad inter-related decisions that must be made. Extension in particular, with its home in the Land Grant University System, prides itself on the development of research-based or linked programs. Indeed, explicit reference to the research and knowledge base should guide the other four facets as they interplay in the developmental process. Pictorially these five facets and their interrelationships can be depicted as a cone in which the research and knowledge base (R/K) is at the apex of the cone with the other four facets forming points on the circular base. Dynamically then, the developmental process can be thought of as a spiral or sequential model (Van den Ban and Hawkins, 1988) in which the cone gets progressively smaller as different developmental decisions are made, as follows:



where: R = Resources; T = Time; C = Content; C = Context; and,
R/K = Research/Knowledge Base.

Examples of the kinds of things that would form part of the research/knowledge base are: evaluations of related programmatic efforts; topically relevant publications reporting the results of research; results of demonstrations or field trials some of which may have been especially designed to deal with the topic; expert opinion based on extensive research and practical experience; etc.

Table 10.2 Examples of Context Variables for the Provision of Educational Experiences

Mechanisms

Print (newspapers, leaflets, magazine articles)
Pictures
Posters
Radio
Television
Audio & Video Cassettes
Compact Disk
Interactive Video
Talks
Demonstrations
Folk Media
Dialogue
Group Meetings/Discussions
Workshops/Seminars
Educational Tours
Field Days
Campaigns

Means

Professional Staff
Program Aides
ParaProfessional Staff
Volunteer Partnerships with Groups &/or Individuals (e.g. Master & Mentoring Programs)
Youth
Social Reference Groups or Members
Other or Former Clientele
Other Organizations & their Staffs
Clientele of Other Organizations (current or former)
Cooperative Arrangements/ Coalitions with Other Organizations

Settings

Public Building
Private Home
School or Church Room
Summer or Day Camp
County/State Fair
Barn
Tent
Open Field
Log or Tree Stump
Pond or Lake

A cone may encompass several cells or even an entire column. The deciding factor is whatever the developmental team finds is easiest to facilitate their thinking about such matters. This will usually entail the columns of the matrix. Once the profile(s) has (have) been determined the resultant matrix may look like the following wherein a single column contains the results of the decisions made for the four facets (R, C, T, C):

TARGET AUDIENCE

LIMITED RESOURCE
HOUSEHOLD MEMBER

RESOURCES:	Funds for 10 paraprofessional salaries plus travel plus printing of modules.
CONTENT:	Modular with modules for: sanitation and personal hygiene; food purchasing; food preparation; food storage; clothing repair; money management; parenting.
TIME:	One visit per week for 2 hours each for 36 weeks (1 on 1).
CONTEXT:	Pictorial materials in color to be used by the paraprofessional with the homemaker in his/her private dwelling.

This matrix will in turn lead to a series of specialized tasks that will be conducted by the team members or their designates. As an aid in specifying the EEP or in the course of carrying out these tasks subsequent to its specification, a variety of techniques may be used that are familiar to those involved in program evaluation and research and some have been used by them for many years. Examples of some of these efforts and methods that might be used are given below:

Purposes	Methods
o To determine which means are most effective for reaching or recruiting members of the target audience(s).	Surveys &/or interviews; case studies (Yin, 1989)
o To determine the relevance and appropriateness of the content to members of the target audience(s).	Individual &/or group interviews

o The Profile

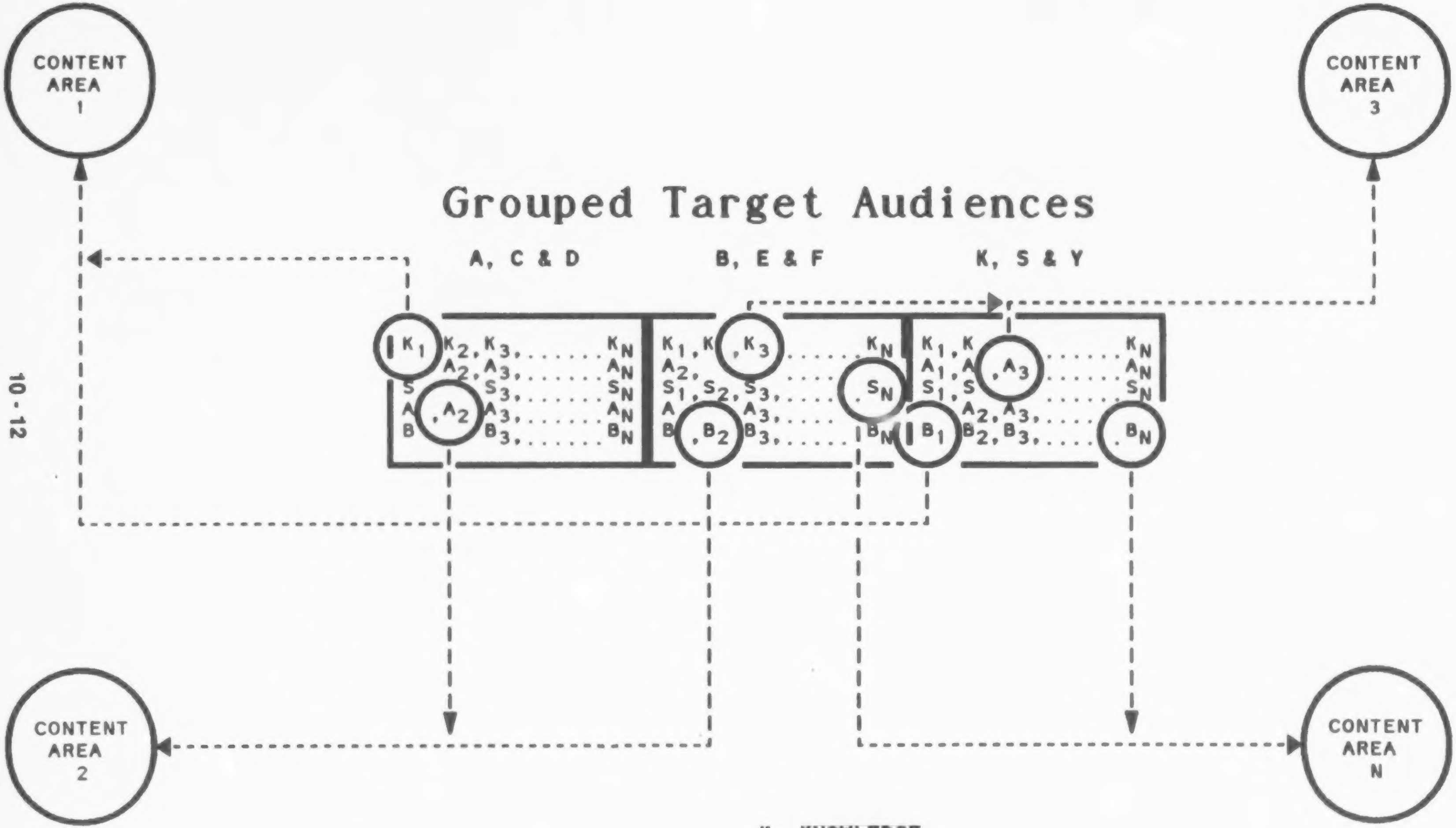
Once the target audiences have been grouped by the nature of their KASAB's, developmental efforts can be oriented toward these larger groupings still utilizing the matrix approach. In the illustration that follows each section of the matrix can be thought of as having its own cone:

TARGET AUDIENCES

	A,C&D	B,F&E	K,S&Y
KNOWLEDGE			
ATTITUDES			
SKILLS			
ASPIRATIONS			
BEHAVIORS/ PRACTICES			

Chapter 14 gives examples of stage - process models and a "theory of learning" that the development team may want to use as a guide in sequencing the **EEP**.

Figure 10.3 Sorting of the KASAB's from the Matrix of Educational Effects into Common Content Areas


CONTENT AREA 1
CONTENT AREA 3
Grouped Target Audiences
A, C & D
B, E & F
K, S & Y
K_1
A_2
K_3
B_2
S_N
B_1
A_3
B_N
CONTENT AREA 2
CONTENT AREA N

K- KNOWLEDGE
A- ATTITUDES
S- SKILLS
A- ASPIRATIONS
B- BEHAVIORS/ PRACTICES

o	To determine the appropriateness of the structure and format of the content to the target audience(s).	Individual &/or group interviews
o	To ascertain the degree of importance to attach to or amount of time to allocate to different content areas	Expert opinion,or Group Process techniques (Moore, 1987)
o	To determine the accuracy of the curriculum content.	Peer review

For example, the use of individual interviews to obtain information from clientele so as to determine the content of the program was cited earlier in Guam's work on Import Substitution (Workman, 1988). Similar uses might be made of surveys. Krueger (1989) cites the use of focus group interviews to help determine the structuring and educational format for a nutrition education program. Wade (1993) used focus groups to aid in determining the delivery mechanisms and program content for a program on Adolescent Pregnancy & Parenting.

10.3 Specifying the Developmental Tasks for the Educational Experience Profile

Once the EEP has been specified the following tasks can be conducted:

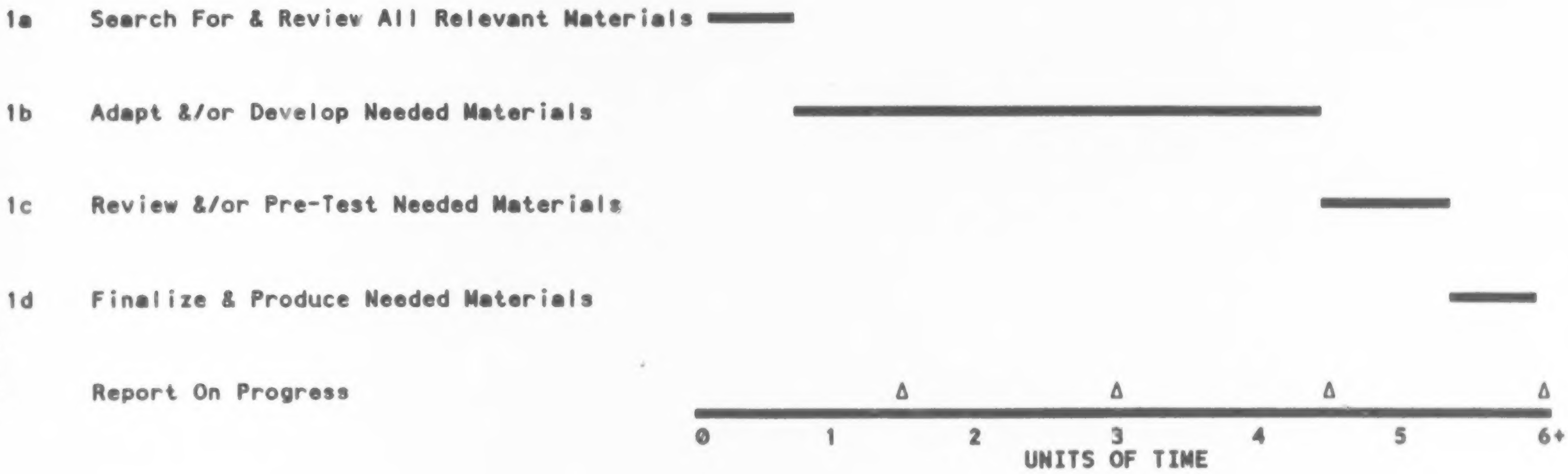
- **Search For & Review Relevant Materials**

In order to avoid later duplication a single, all encompassing search is made of materials relevant to all of the developmental modules, not just those for the EEP. However, detailed review of the materials relevant to the other modules may be held in abeyance until the EEP becomes better known. After review of the EEP related materials, decisions are made as to which ones can be used or adapted and for what topics developmental efforts are needed. One step that can aid these decisions as well as those of the next task is to sort the KASAB's from the Matrix of Educational Effects into different content areas, as depicted in Figure 10.3, since such materials are usually archived in that manner, anyway. The specification of learning objectives for these content areas a la Gagne' et. al (1992) may also help guide the next task.

- **Adapt &/or Develop Relevant Materials for the EEP**

In this task the relevant materials will be adapted or for those topics/objectives for which materials are lacking - some will have to be developed. Considerable time and resources may be required for this task if much developmental effort is involved. Performance contracting with time as one of the criteria may be one way of accelerating such efforts.

Figure 10.4 Tasks for the Development of The Educational Experience Profile



- **Review &/or Pre-test Resultant Materials**

The materials that result from the prior task may require review by subject matter experts and some kind of a pre-test, especially if the materials are very new. Expert opinion and focus groups with potential clientele are two such means for achieving these.

- **Finalize & Produce the EEP Materials**

In this task the materials are revised based upon the findings of the preceding task, put in a form suited for the delivery mechanisms and produced in sufficient quantity for the implementation phase.[Alternatively, the reproduction in large numbers may be held in abeyance until the completion of the other modules, especially if it is anticipated that their development might result in some modifications to the EEP materials.] An illustrative set of timelines for these tasks is given in Figure 10.3.

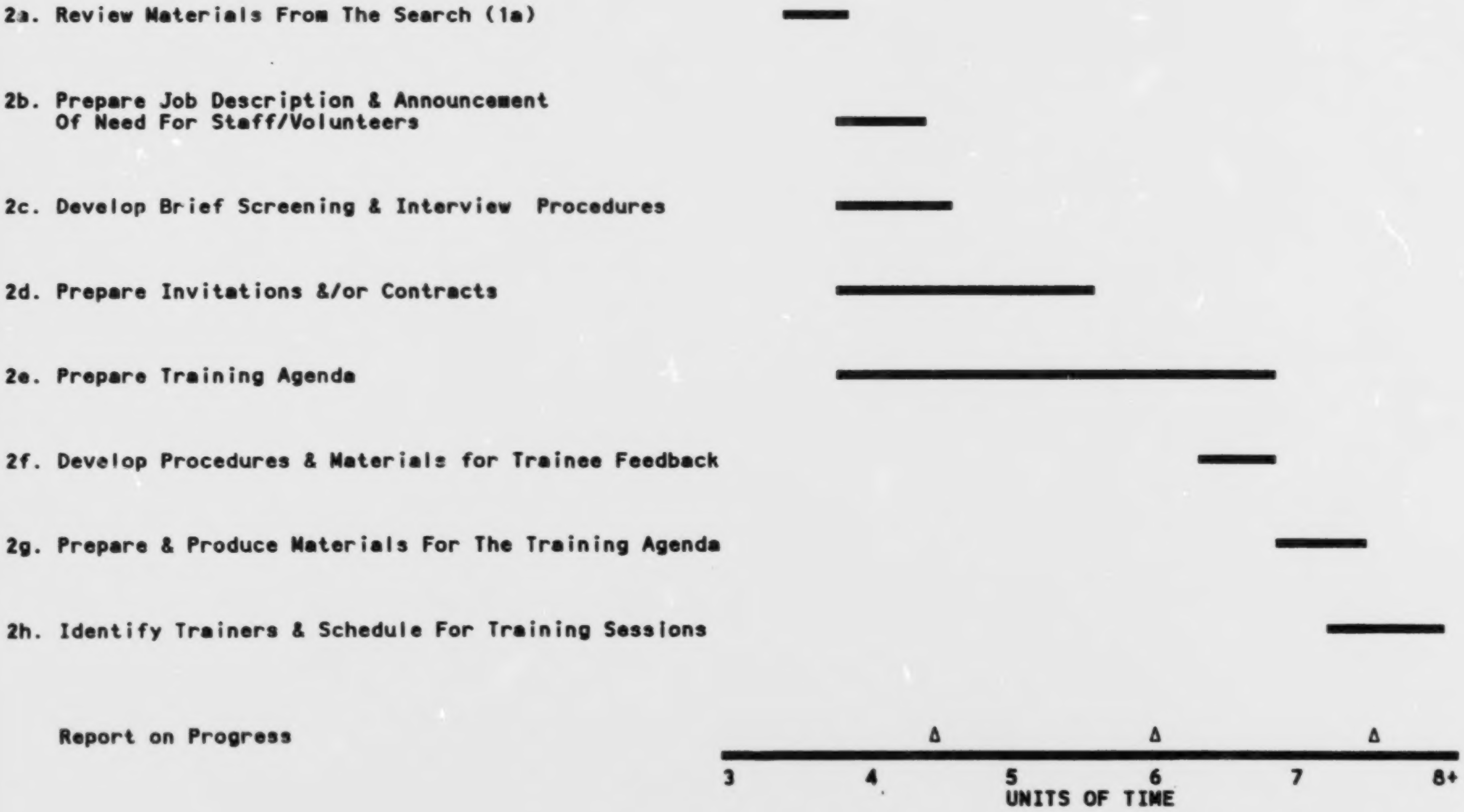
The developmental efforts for the other related modules can begin at times that are keyed to the time-phased accomplishments of the EEP module. Conceivably, some of these modules would go through the same sequence of developmental steps subsequent to the overall search. However, the collaboration and accomplishment modules would **not** likely follow this same sequence of steps, as we shall see.

10.4 Develop Materials & Procedures for Acquiring & Training Staff & Volunteers

In this module materials will be developed to acquire and train those who will provide the program. A critical question that will affect the extent of training relates to how much prior experience with the organization, the subject matter, other program providers and clientele of the proposed type, do staff &/or volunteers bring to the setting. Those with a great deal of experience may need little more than a brief orientation while for those with little or no experience training alone may not suffice - rather some kind of mentoring of the more experienced with the less experienced may have to be put in place as part of the ongoing program (Zimmer & Smith, 1992). ***The Program Logic Model and it's components should serve as an important vehicle for orientation to the specifics of the program including intended effects***. Tasks for this module might appear as follows:

- Prepare Job Description & Announcement of Need for Program Providers
- Develop Brief Screening & Interview Procedures
- Prepare Invitation &/or Contracts
- Prepare Training Agenda - including
    - Nature & Intended Effects of Overall Program
    - Clientele Recruitment Procedures
    - Nature of Delivery Teams & Roles of Members
    - Uses of Instructional Materials
    - Collaborations & Referrals
    - Promotional Efforts & Materials Use
    - Accomplishment Reporting

Figure 10.5 Tasks for the Development of Recruitment Procedures & Training Materials



    - Procedures & Materials for Trainee Feedback
- Prepare & Produce Materials for Training Agenda
- Identify Trainers & Prepare Schedule(s) for Training Sessions

The use of participant observers (perhaps to whom other participants give their comments) coupled with structured group interview techniques is a powerful alternative to the usual end-of-training form and often yields more useful information.

An illustrative set of timelines for these tasks is given in Figure 10.4.

10.5 Develop Materials & Procedures for Creating Awareness & Promoting the Program

In this module promotional materials for the start-up of the program will be prepared that can be used as it is initiated in different sites. There is also a provision for periodic feedback on program accomplishments to targeted audiences, administration and select stakeholders. The results obtained from the accomplishment reports will form part of the basis for this feedback, including local success stories. The "personal touch" with select stakeholders through staff, volunteers and clientele is thought to be particularly effective and will be relied on heavily in the conduct of Main Event #7:" Create Awareness & Promote Program". Some aspects of this approach may need to be included in the training sessions for staff and volunteers. Steps in this module might run as follows:

- Review Materials from the Search
- Adapt &/or Develop New Materials & Procedures (as appropriate) for:
    - Brochures for Handouts & Mailouts
    - Briefings
    - Newspaper Articles
    - Public Service Announcements for Radio/TV
    - Promotional Events at malls, fairs, etc.
    - Forms of Recognition for Support &/or Involvement
- Develop Format, Proposed Content & Utilization Procedures for the Local Newsletter
    - Develop Procedures & Materials for Feedback from Newsletter Recipients

An illustrative set of timelines for these tasks is given in Figure 10.6.

10.6 Establishing Networks/Collaborations

Many of the activities listed for Main Event #8 "Initiate Networks/Collaborations" can actually begin in the developmental phase. Also, they probably need to since arrangements with different bureaucratic agencies can be quite time consuming and may require some protracted negotiations, especially where staff and resources are concerned. If other agencies are to participate in specifying the details of the program then they would likely have some representation in the design and developmental phases. Such involvement might actually facilitate later collaborations. However, this Main Event refers only to laying the groundwork for a collaborative effort once implementation gets underway. For the latter, some specifics need to be known about the program so that the nature of other organization's involvement can be discussed and negotiated. It would seem prudent to establish contact with the other organization(s) as early in the developmental phase as possible and complete as many of the following activities as is practical:

- Establish Contact & Solicit Cooperation
- Obtain Commitment
- Negotiate Roles & Responsibilities including Staff & Resources
- Identify the Key Actors &/or Products Involved
- Identify the Nature & Schedule for their Involvement (recognizing that some of their staff may participate in the training sessions)

An illustrative set of timelines for these tasks is given in Figure 10.7.

10.7 Develop Accomplishment Reporting Procedures, Materials & Dissemination Efforts

To meaningfully devise a reporting system for program accomplishments one must know not only the structure and content of the program but the implementation and expected participation rates for different groups of clientele. In the implementation cycle the focus will be primarily on getting the program "up & running". Whereas in the maintenance/improvement cycle the focus will shift to clientele benefits and the identification and infusion of exemplary practices into the program. However, as we shall see, the implementation cycle may provide an opportunity for obtaining some "early returns" on clientele benefits, if the rate of implementation is of a certain type. These notions are discussed in the tasks that follow:

- **Identify Implementation Schedules**

Many programs have a graduated schedule for implementation that looks very much like a "learning curve", as in Figure 10.8, wherein a few sites are the initial implementors with others following. Such a curve can provide an opportunity to learn about the problems encountered in implementation and their resolution early on. Since these early sites reach a state of maintenance sooner than the others they can also provide an early view of how participants are benefitting. Other schedules also depicted in Figure 10.7 illustrate the "all-at-once", "staircase" and "ogive" schedules. The latter two also provide an opportunity for learning and "early returns" as well as a respite or delay period which can additionally be used for problem identification and resolution. Since all of these are variants of the learning curve, we shall focus primarily on it.

For the graduated implementation schedule two mechanisms are suggested to enhance problem identification and resolution. They are:

Figure 10.6 Tasks for the Development of Promotional Materials & Procedures

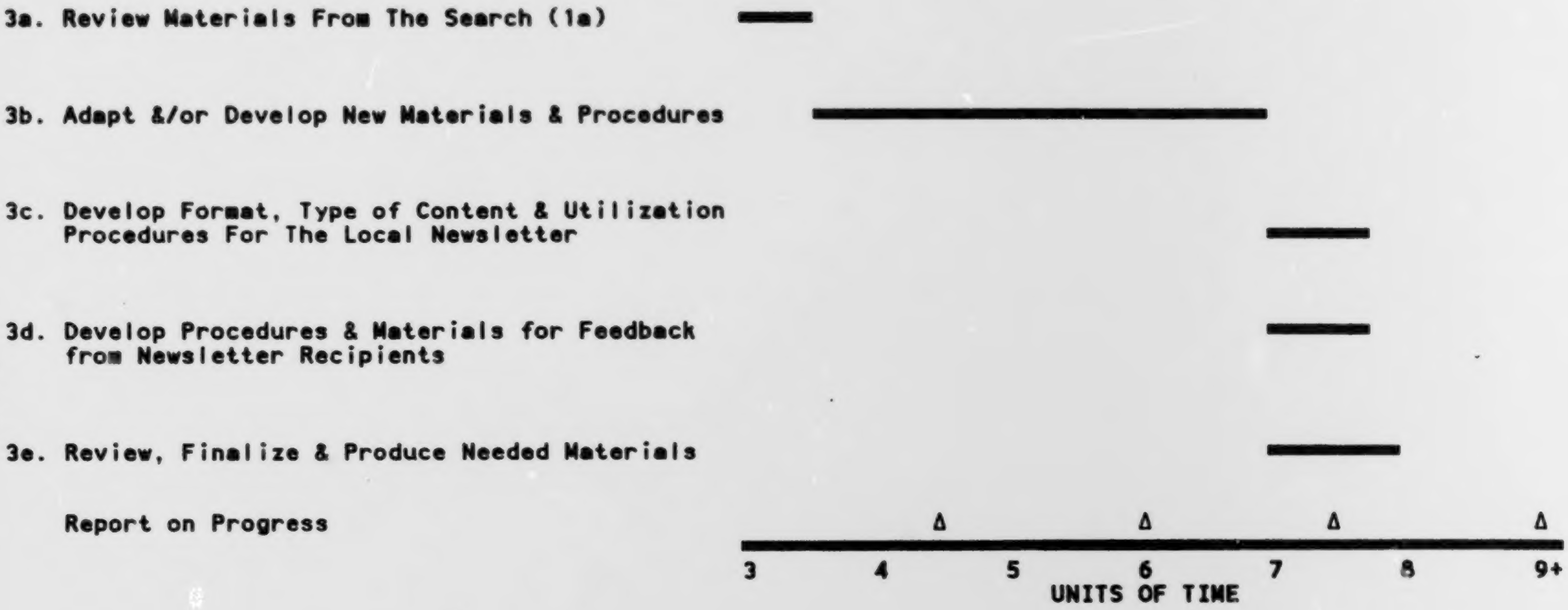


Figure 10.8 Illustrative Implementation Schedules

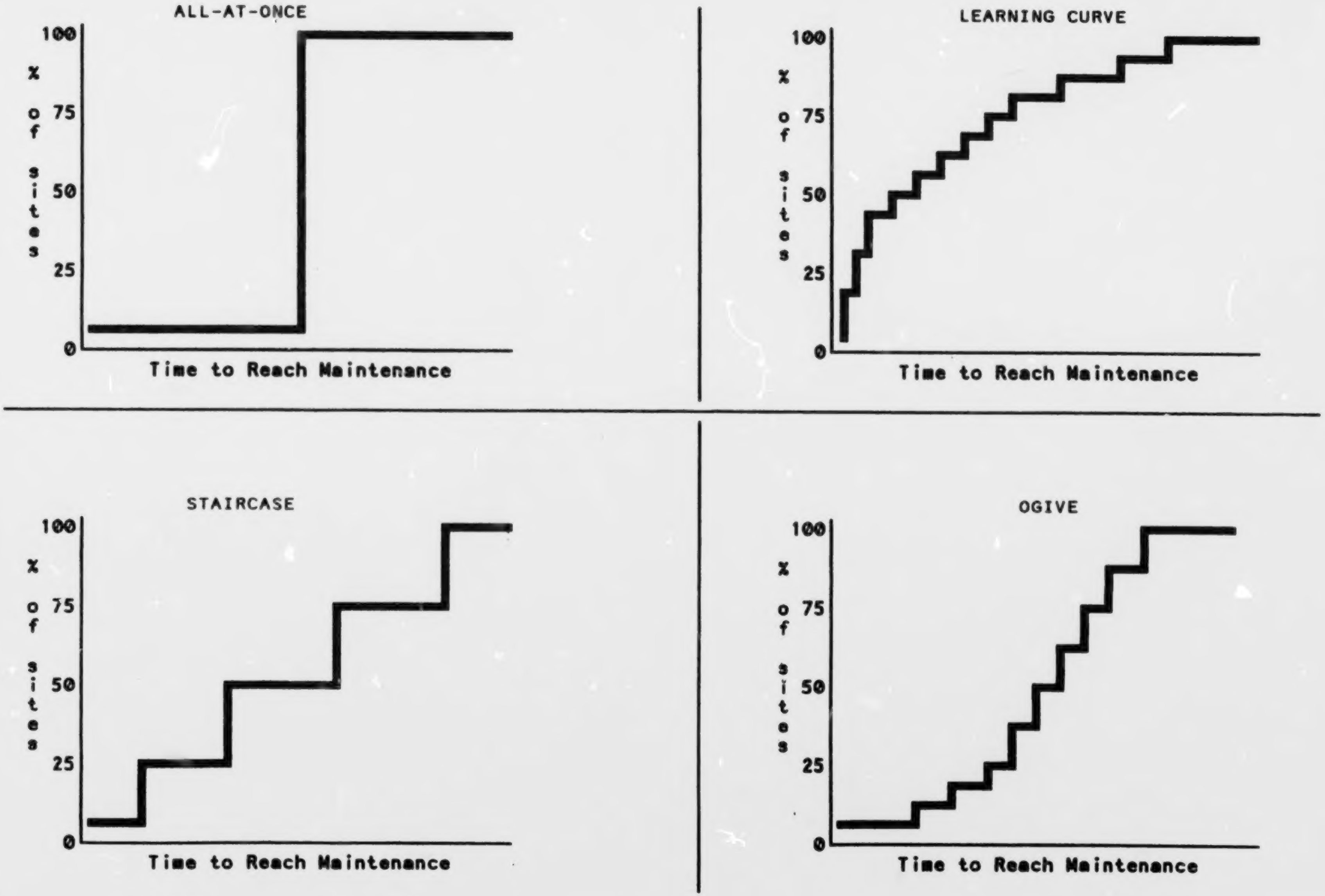
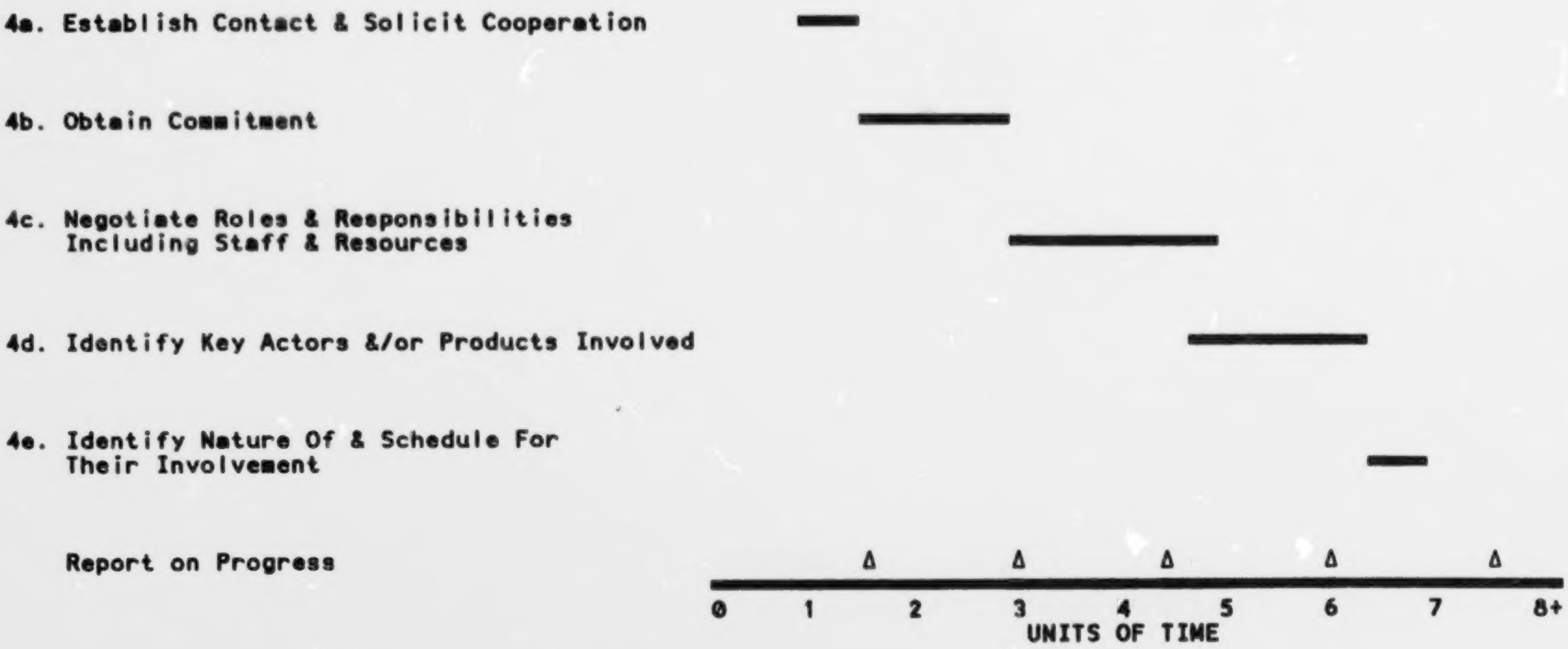


Figure 10.7 Tasks For Establishing Networks & Collaborations



submitted in a form that allows ready compilation and aggregation thereby enabling the depiction of total program implementation quickly. Feedback, in profile form, will be provided to each site depicting their status and accomplishments relative to the total program. This form, when augmented by other local information will provide the basis for the newsletter or progress report which will comprise one of the dissemination efforts.

- **Designate Maintenance & Improvement Variables**

Once a "steady state" has been attained the number of sites and/or the number of participants becomes a constant while the information on the other variables reflects the periodic performance of the program, with corrective actions being taken as deemed necessary by staff. Focus now turns to clientele benefits and the identification and diffusion of desirable practices. Clientele benefits are best obtained by a 3rd party follow-up (perhaps by phone) with participants, former participants, dropouts, etc. to determine their perception of benefits, problems and improvements that might be made, etc. This 3rd party should not have any vested interest in how the program has been carried out nor any felt need to defend it against what might be unfair or uninformed criticisms nor any motivation to put the results in a favorable light. If these conditions can be satisfied then this 3rd party may be a volunteer, a student, a staff member of some other program or site, etc. This follow-up would focus on perceived benefits or surrogates for benefits that are longer term in nature, might employ a sampling rationale(if the # of participants to be contacted is large), and would provide aggregate information back to the site devoid of any identifiers of individual respondents. Such information would form one source for the identification of desirable practices. Another source would come from local staff on what they deem their most successful efforts to be in terms of effectiveness, efficiency or other forms of exemplariness with these submissions being reviewed, codified, synthesized and promoted centrally. Incentives might be provided to encourage adoption of particular practices with such adoption being reported in the periodic reports of the reporting system.

A note about the identification of successful practices ~~may be appropriate~~. One approach is to have staff identify from their personal observations, practices that they consider unusually effective, efficient or desirable for some other reason and, attempt to systematize them and infuse them into the program. This also might be attempted for ineffective practices in order to identify training needs or structural impediments in the program. However, staff are often reluctant to identify "undesirable" practices either about themselves or others. Structured group interviews might serve as a useful tool for identifying such practices, especially for the latter. [See Chapter 14 for one such approach using performance incidents.] Another approach is to "borrow" what are deemed desirable practices from other sites, programs, organizations, etc. and try them out with one's own program on a limited scale to determine their effects. Staff might even invent new practices that they can then try out to test improvements.

If, at some point in time after maintenance is attained, it is deemed necessary or desirable to do an evaluation of the program, then procedures like those outlined in Chapter 15 and/or 16 could be followed.

oo **Mentor Sites** - early implementors can provide guidance to later implementors thereby facilitating the ease of implementation
oo **Hot Line** - a "hot" line can be established to provide guidance and consistency to the manner in which problems are resolved. Such might be particularly useful for the "all-at-once" implementation schedule

We need also to recognize that there is an expected time to complete implementation and arrive at the maintenance state and that this expected time can vary considerably from one site to another, depending on a variety of contextual variables. Examples of contextual variables range from such obvious ones as geographic distance, staff shortages, intransigence of a particular group of clientele or the severity of other problems impinging on them, etc. Pursuing the axiom that "nothing succeeds like success" it might be prudent to start with the sites where success comes quickest and then move on to the others. However scheduled, experiences from the early sites may help reduce the expected time for later sites.

o **Designate Implementation Variables**

For many of the implementation variables there is an expectation or expected value and an observation or observed value. The magnitude of this difference between expected and observed forms the basis for judging how well implementation is proceeding. For example:

oo **Number of Sites (or Units)** - the implementation schedule provides the expectation for the number of sites in which the program will be implemented, by time
oo **Attributes of Sites** - local staff will have indicated the attributes of sites that they expect to be working in, within a specified time period
oo **Number of Participants Per Site** - local staff will have indicated the number of participants they expect to be working with, within a specified time period
oo **Attributes of Participants** - local staff will have indicated the attributes of participants they expect to be working with, within a specified time period
oo **Nature & Extent of Participation by Attributes of Participants** - local staff will have indicated their expectation for the extent to which different types of clientele will participate in different aspects of the program, within a specified time period

Variables such as these will form part of the reporting system by which local staff will forward to a central location information about the site's (or unit's) conduct of the program. Other information included in the reporting system will pertain to such implementation concerns as are spelled out in the activities and indicators for the Main Events in the Program Logic Model. Additional information will pertain to the availability and accessibility of resources necessary to carry out the program, work with other agencies, problems encountered and resolved, etc. Site or unit reports will be submitted on a periodic basis (e.g. weekly, monthly, quarterly) with problems on accuracy of reporting handled through supervisory oversight. Implementation information will be

- **Identify Reporting & Dissemination Procedures**

The primary means of dissemination will entail a follow-up either in person or by mail or phone, with and through the means utilized in the module on "Create Awareness & Promote Program". The mechanisms would be the local newsletter with personal success stories and the feedback report cited earlier.

An illustrative set of timelines for these tasks is given in Figure 10.9.

10.8 Integrating & Finalizing the Products & Processes

The final task of the developmental phase is not meant to be very involved or time consuming. The ease or difficulty with which it is completed will depend very much on how well the developmental team members have coordinated their earlier efforts for the different modules. [This effort is listed as a task rather than a module because it involves the summation and integration of the modular results and should occur over a fairly short time period (e.g a few days to a few weeks).]

Once the developmental modules have been completed and an actual profile exists for the target audiences their "readiness" can be reviewed or tested prior to full scale implementation by use of some of the following:

- Structured Group Review using subject matter and "lay" experts
- Role-playing
- Field trials

For example, in her work on Water Quality in Maryland, Smith (1989b) used field trials to test materials and approaches in order to develop an identifiable program.

Alternatively, coordination among the different module development efforts may have been so thorough that their integration is a relatively minor effort and, if further testing is not required they can proceed to the implementation phase. Figure 10.10 attempts to portray these integrative efforts.

In view of the central role that the Program Logic Model and it's components will play as an orientation and training tool, it may have to be updated or revised due to decisions made and actions taken in the developmental phase.

In the next chapters we see how these concepts and procedures are put into practice.

Figure 10.9 Tasks for Developing Accomplishment Reporting & Dissemination Procedures

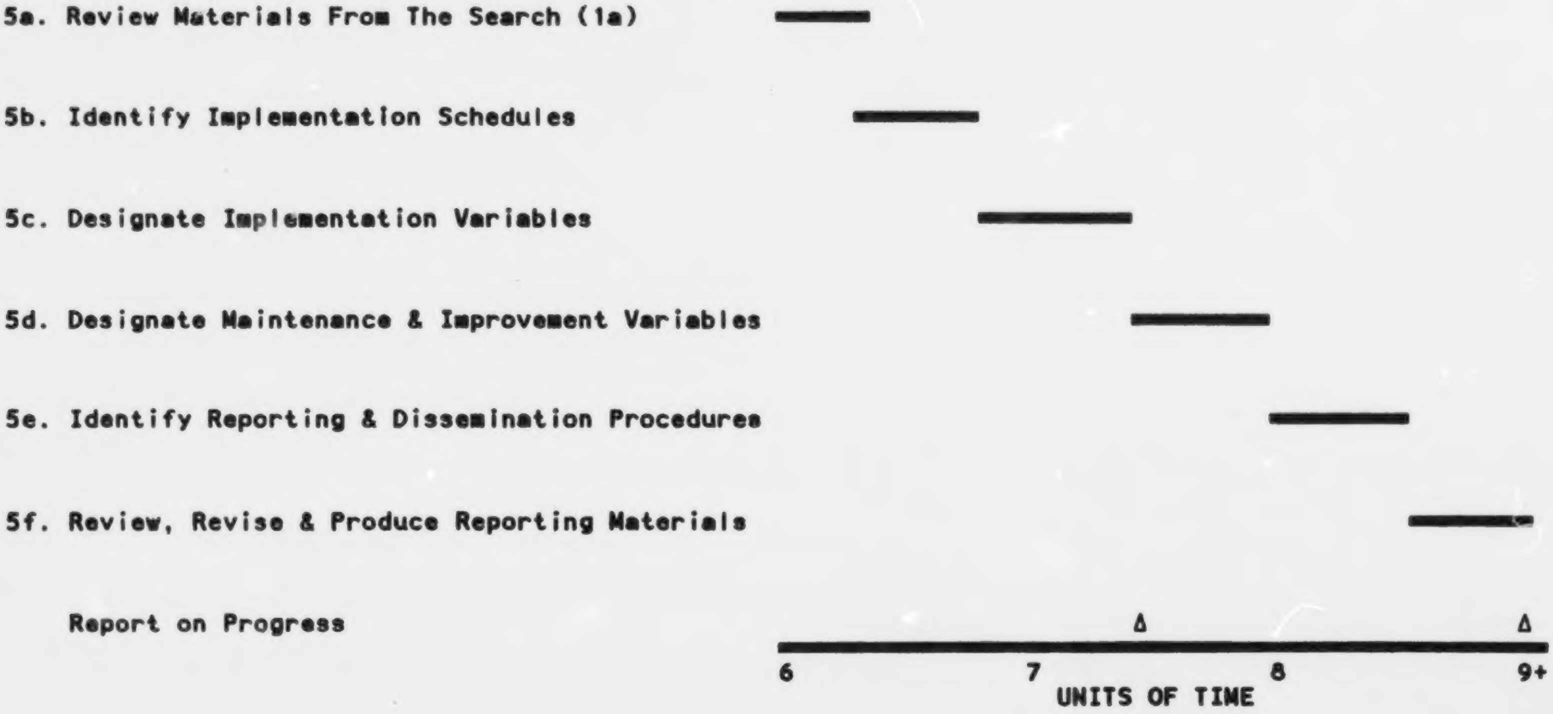
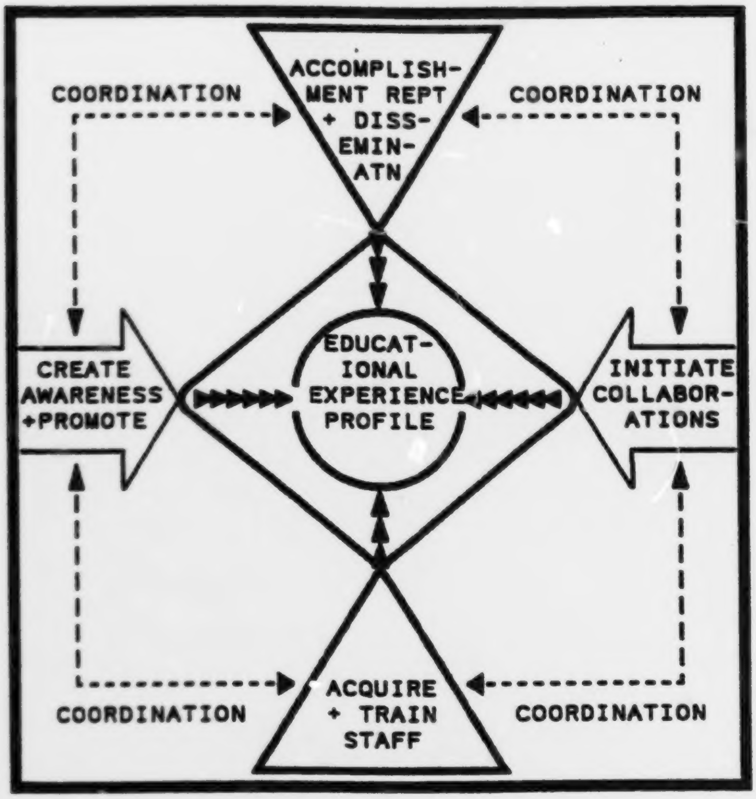


Figure 10.10 Integrating & Finalizing the Products & Processes from the Developmental Modules


ACCOMPLISHMENT REPT + DISSEMINATN
COORDINATION
COORDINATION
CREATE AWARENESS +PROMOTE
EDUCATIONAL EXPERIENCE PROFILE
INITIATE COLLABORATIONS
ACQUIRE + TRAIN STAFF
COORDINATION
COORDINATION

Cooperative
Extension
System

PROGRAM AND STAFF DEVELOPMENT

LIFE CYCLE PROGRAM MANAGEMENT & EVALUATION:

AN HEURISTIC APPROACH

PART II
of 2

PREPARED FOR USE BY THE

COOPERATIVE EXTENSION SYSTEM

PLANNING, DEVELOPMENT AND EVALUATION STAFF
EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE

APRIL 1994

LIFE CYCLE PROGRAM MANAGEMENT & EVALUATION:

AN HEURISTIC APPROACH

by

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April , 1994

PART II
of 2

Extension Service
U.S. Department of Agriculture
Washington, D.C.
20250-0900

The views expressed herein are those of the author and do not necessarily reflect the official views or policies of the U.S. Department of Agriculture.

CONTENTS

Foreword to the First & Second Editions

1. Introduction to Life-Cycle Program Management

2. Futuristic Perspectives for the Organization

3. Problem Finding

4. Designing a Program for the Problem: An Overview

5. The Program Logic Model and It's Components

6. Incorporating Relevant Documents into The Process

7. Identifying Stakeholders and Determining their Viewpoints

8. Developing Conclusions, Recommendations and Suggesting Next Steps

9. An Illustrative Model for Extension Programming

10. Developing the Program

11. Initiating the Program and Monitoring Implementation

12. Maintaining and Improving the Program

13. Redirecting the Program

14. Special Topics in Life Cycle Program Management

15. Life Cycle Program Evaluation

16. Conducting In-Depth Evaluation Studies

17. Sharing & Using the Results of Evaluations

18. References

19. Appendices
    A. Workshop Formats and Materials for the Program Design Facilitator(s)
    B. Frequent Questions and Answers
    C. Outline of A Case Report
    D. Definitions of Terms and Concepts

11. Initiating the Program and Monitoring Implementation

In this chapter we focus on such concerns as the assessment of readiness for implementation, publicity efforts that may be associated with the "kickoff" of the program, indicators of implementation, problems encountered and resolved, criteria for the attainment of implementation and early indicators of effects on clientele. But first we examine the role of the Life Cycle Guidance Team (LCGT) in such an effort.

11.1 What Is the Role of the Life Cycle Guidance Team in Implementation?

In this stage of the program the Life Cycle Guidance Team (LCGT) will be concerned primarily with the **rate** and **adequacy** of implementation. However, they will also examine the program's readiness for implementation, attend to any publicity efforts that may be planned as part of the initial efforts and see to other matters that are necessary for the sustenance of program plausibility.

11.2 Checklist Analysis of Readiness for Implementation

Before proceeding with implementation the LCGT may want to reassure itself that its' newly developed program is worthy of implementation. A number of criteria have been suggested for judging the quality or excellence of programs. Two authors in particular, have put forth criteria for judging Extension programs but these criteria undoubtedly apply to other organizations as well. Both sets of criteria encompass the notion of the "life-cycle" of a program. Those of Mueller (1991) are more explicit while those of Smith (1992, 1991) tend to be embedded in the concepts that encompass the criteria. These criteria have been adapted somewhat to better apply to the stage just prior to implementation. They can actually be used at any stage of the life-cycle process to gauge adequacy of accomplishments to that point.

Table 11.1 gives an adaptation of Mueller's quality indicators. They are organized by program phases (problem selection, commitment, strategy implementation, review/sunset) and by the central question being addressed in each phase (is it an important problem - in which we can make a difference - and recognize that we did). The quality indicators are examined to obtain an answer to each central question while the criteria pertain to different aspects of the indicators.

Table 11.2 gives an adaptation of Smith's criteria for excellence. Her criteria are organized around the three major concepts of: relevance; quality; and, utility. Relevance is concerned mostly with the problem identification process while quality is concerned more with the nature of the program. Utility focuses more on the program effects and its consequences.

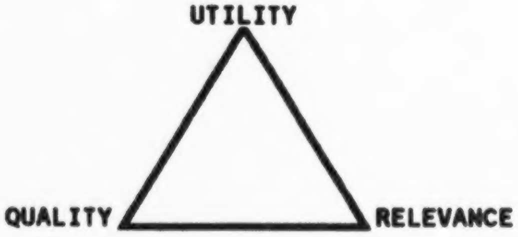
Should the LCGT decide to use these criteria to judge their "about to be implemented program" and should that program resemble the illustration we have been using, it might find something like the following. On Smith's criteria for relevance and quality the

Table 11.1 Program Quality Indicators

Program Phase:	Problem Selection	Commitment	Strategy Implementation	Review/ Sunset
Central Questions:	What important societal problems exist that warrant our organization's attention?	Can our organization make a difference in the problem?	What needs to be done to make a noticeable difference in the problem?	What did we learn? What shall we do next?
Quality Indicators:	Important Focused Grounded	Timely/time-limited Credible Capacity	Results-oriented Responsive Feasible Flexible/adaptive Systematic	Utility Evidence Follow-through
Criteria:	The problem is important Our organization has an important role to play Indicators of the problem's effects have been identified Problem can be interpreted similarly in different locales Other efforts addressing the problem can be identified & involved Problem has recognition & there may be/or is support for attempts to ameliorate it	Timing is right- a program initiated now would be neither too early nor too late Program time limits can be specified Research base exists, is identifiable & can/has be(en) used for programming Ethical implications of addressing the problem are considered Risks & benefits of undertaking the program are considered Individual &/or team expertise exists or can be acquired Key stakeholders/partners/collaborators are or can/have be(en) informed & involved Financial resources can/have be(en) negotiated Accountability means can/have be(en) established Means/mechanisms can/have be(en) established to monitor the problem	Program components are/or can be logically linked & have the potential for making a difference in the problem in a specified time period Implementation (content, frequency of exposure & delivery) can/will be sufficient to make a difference in the problem Delivery is appropriate for targeted clients Responsive action-short lead times Program components & implementation fit current or anticipated capacity-it's doable Delivery can be managed & systematically adapted as conditions change-we'll know what's going on. Program & problem monitoring information can be used to make changes in strategy implementation	Appropriate stakeholders can be involved in sunset assessment & decision-making processes Evidence plan focuses on important questions that will illuminate program results & support relevant decision-making Assessment evidence will be available at the needed time including data collection & analysis Evidence will have balance re levels of program operation, from multiple sources & changes in problem indicators Assessment findings & next step decisions can be communicated to clients & stakeholders Next steps may be achievable

Adapted from: M. Mueller "Quality Means Results" . Journal of Extension (Spring,1991)

Table 11.2 Criteria for Excellence



RELEVANCE

- ADDRESSES HIGH PRIORITY PROBLEM, SITUATION, CONCERN
  - PROBLEM (OR ASPECT OF) NOT MET BY OTHER ORGANIZATIONS (PUBLIC, PRIVATE)
  - PROBLEM AMENABLE TO CHANGE THROUGH EDUCATIONAL EXPERIENCES
  - APPROPRIATE OTHERS (CLIENTS RESOURCE PROVIDERS, LEGITIMIZERS) INVOLVED IN PROGRAM FOCUS
  - CHARACTERISTICS OF SITUATION AND NUMBERS ARE IDENTIFIED AS EVIDENCE OF INTENSITY/PERVASIVENESS OF PROBLEM
  - INCLUDED IN INSTITUTIONAL/ SYSTEM PRIORITIES
  - FUNDS RECEIVED FROM PUBLIC PRIVATE SOURCES
- PROGRAMMATIC ACTION TIMED TO NEED

QUALITY

- PROGRAM PROVIDERS HAVE COMPETENCIES NECESSARY TO CARRY OUT PROGRAM
- PLAN IS PLAUSIBLE AND OUTCOMES EVALUABLE
  - PROGRAM OBJECTIVES ARE IDENTIFIED, CLEAR AND FOCUS ON USE
  - CONTENT IS BASED ON CURRENT RESEARCH/ KNOWLEDGE
  - LEARNER TEACHING STRATEGIES ARE IDENTIFIED AND SUFFICIENT (TYPE, QUANTITY, SEQUENCE) TO EXERT PLANNED INFLUENCE
  - OBJECTIVES AND LEARNING ACTIVITIES ACCOUNT FOR SPECIAL NEEDS OF AUDIENCE (LEARNING, CULTURAL, ETHNIC)
  - RESOURCES IDENTIFIED AND ALLOCATED (TYPE, QUANTITY, QUALITY) TO IMPLEMENT PROGRAM AS PLANNED
  - APPROPRIATE DISCIPLINES INVOLVED IN PLANNING AND IMPLEMENTATION
  - PERFORMANCE INDICATORS ARE IDENTIFIED (WHAT IS MEASURED AND HOW MUCH IS ENOUGH)
  - SOURCES ARE IDENTIFIED/AVAILABLE TO PROVIDE EVIDENCE OF PROGRAM EFFECTS
- EFFICIENT USE OF RESOURCES
- EVIDENCE OF GOAL ACHIEVEMENT

UTILITY

- EVIDENCE OF CORRECTIVE CHANGE IN PROBLEM OR SITUATION
- NUMBER OF INTENDED AUDIENCE THAT PARTICIPATED
- PARTICIPANT REPORTS OF USEFUL RESULTS
- NUMBER OF REQUESTS FOR PROGRAM RESOURCES/ASSISTANCE
- SOLICITED/UNSOLICITED MEDIA COVERAGE
- PUBLIC FUNDS MAINTAINED /INCREASED
- CREATION OF NEW/IMPROVED PRODUCTS/SERVICES
- PRIVATE FUNDS RECEIVED

ADAPTED FROM M.F. SMITH (1992) CRITERIA FOR EXCELLENCE.
COLLEGE PARK, MD. UNIVERSITY OF MARYLAND COOPERATIVE EXTENSION SERVICE
SEE ALSO M.F. SMITH CRITERIA FOR JUDGING EXCELLENCE. JOURNAL OF EXTENSION (SPRING, 1991)

proposed program would fare well save for the efficient use of resources and evidence of goal achievement. It is presumed that the new program will be an efficient use of resources and some considerations of efficiency were dealt with in the developmental phase. However, a formal cost-effectiveness kind of analysis was not part of the process. Similarly, evidence of goal achievement doesn't become available until the program is underway.[Actually, Smith (1992) indicates stages in the program for which different criteria are most appropriate.]

The program to be implemented can also be judged by the criteria from Mueller's first 3 phases in Table 11.1. Again the new program fares well on these criteria save for those that pertain to timing, ethics and risks. Appropriate timing is presumed however, determining time limits for the program was not a necessary part of the developmental phase and may entail other concerns beyond the purview of the LCGT (e.g. the intransigence of the problem, it's incidence and ecology, future resources available, etc.). The ethical implications of addressing the problem and the risks/benefits of initiating a program to deal with it usually occur very early in the life-cycle process, somewhere between problem identification and the design phase. However, formal means of addressing these have not been incorporated into this process. Mueller's other criteria focus on program accomplishments and consequences.

The LCGT may also bring other criteria to bear on their judgments of quality or excellence of the program at that point in time. Examples of these are: the extent to which the occurrence of potential barriers have been anticipated and their reductions planned for; the extent to which unplanned occurrences (e.g spin-offs) or intervening events would exacerbate the problem or work counter to the desired effects or consequences; the extent to which clients will have the necessary prior knowledge and skill to benefit from the program, etc.

Assuming that the LCGT feels comfortable with the program-to-be, next steps in the implementation process can be dealt with.

11.3 Inaugural Activities

Activities may be planned to publicize and commemorate the initiation of the program. These are not the same as those planned for in the Create Awareness module cited earlier. Rather, these would be efforts that are intended to recognize the organization's overall involvement in the topical area with this new program as well as others it may be sponsoring. These efforts could range from nothing more than a news release to a gala kind of celebration with the involvement of a number of dignitaries. Alternatively, no such activities may be needed or desired.

11.4 To What Extent & How Well Are the Events & Activities Being Accomplished?

In order to monitor implementation, the LCGT will depend in large measure on information that is provided by the program's reporting system, as developed in the module on accomplishment reporting. This would be augmented by information from the "hot" line and mentor sites as well as site reports made by field staff supervisors. These latter would focus primarily on unit performance rather than individual performance. The general questions that the LCGT would concern itself with are:

- o What do the various sources of "feedback" tell us concerning implementation?
- o What barriers/problems have been encountered and how have they been resolved?
- o What are the implications of these answers for the expected rate and nature of implementation?

Since the Program Logic Model (perhaps revised as a result of the developmental phase) serves as the "road map" for implementation, the above questions can be focused on the main events in the model that are concerned with implementation and with which barriers/problems can be associated (viz. Main Events 6 through 10 in the illustrative model). By organizing the results in this manner, the LCGT can make Diagnostic Decisions and recommend Corrective Actions concerning implementation. Examples of these are:

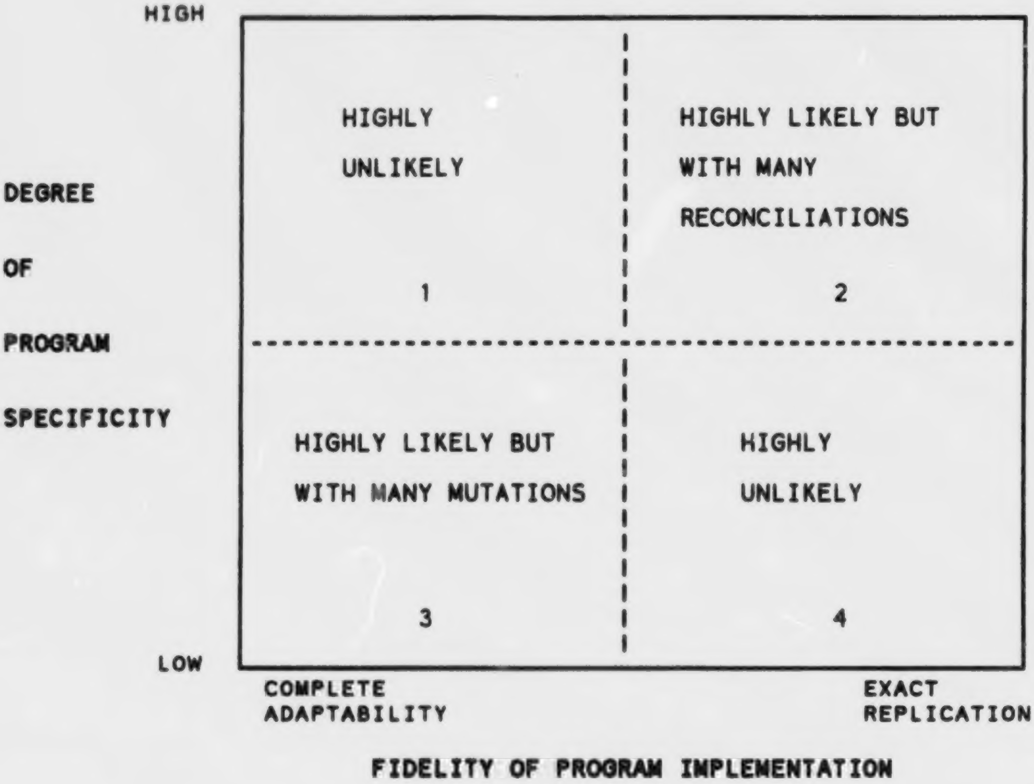
Barrier(s)	**Diagnostic Decision(s)**	**Corrective Action(s)**
Some systematic segment of the target audience is not being reached(e.g. most needy, less affluent, minority, non-English speaking, etc.).	Examine policies & definitions to see if they are exclusionary.	Change policies/definitions
	Ascertain if there are disincentives to participation (e.g what appeals to some may not to others or may even be repugnant).	Change approach or incentive structure.

11.5 To What Extent Is the Program as Implemented the One Intended?

Once implementation has been underway for some time the question arises as to whether or not the program as implemented is the one intended. Corwin (1983) identifies two kinds of changes that can take place in the course of program implementation:

- o **Reconciliations** - occur when those implementing the program cannot comply with its requirements but have to make some adjustments
- o **Mutations** - occur as a result of reinterpreting concepts in novel or creative ways due in part to the fact that they were expressed in abstract language instead of operational terms

Figure 11.1 Likelihood of Implementing an Intended Program by Degree of Specificity & Fidelity of Implementation


HIGH
LOW
DEGREE OF PROGRAM SPECIFICITY
HIGHLY UNLIKELY
1
HIGHLY LIKELY BUT WITH MANY RECONCILIATIONS
2
HIGHLY LIKELY BUT WITH MANY MUTATIONS
3
HIGHLY UNLIKELY
4
COMPLETE ADAPTABILITY
EXACT REPLICATION
FIDELITY OF PROGRAM IMPLEMENTATION

Scheirer (1987) reminds us that the faithfulness or fidelity with which a program can be implemented will depend in part on the degree of specificity it is given prior to implementation. In Figure 11.2 we attempt to integrate these concepts into a common framework by portraying the likelihood that a program will be implemented as intended depending on its degree of specificity and fidelity of implementation. Examination of this figure shows that:

- In quadrant 1 are found programs that are highly specific but can be adapted in any way desired in the course of implementation. If a specific program is the one desired then it seems highly unlikely that it will be the one implemented.
- In quadrant 4 are found programs that lack specificity but are to be implemented with a high degree of fidelity or exactness. This is really a contradiction in terms since it is impossible to exactly reproduce something that lacks specificity. Hence, it is also a highly unlikely result.
- In quadrant 2 are found programs that have a high degree of specificity and hence could be reproduced exactly if such exactness were possible. But, Corwin (1983) suggests that such exactness may not be obtainable without allowance for reconciliations. Hence, a high likelihood of implementation as intended is qualified by the occurrence of a number of reconciliations.
- In quadrant 3 one finds programs that lack specificity and are completely adaptable. Again we find an apparent contradiction in terms for a program lacking in specificity could only be implemented by each site inventing its own. In the extreme, all of the sites would be mutants since that is the only means by which they could gain the specificity to be implemented. Hence, the high likelihood of implementation is qualified by the occurrence of mutations.

These considerations suggest that there is an **optimal point** between specificity and fidelity that will not be so specific as to leave implementing sites with no possibility of adaptation nor so general as to put them all at risk of "doing their own thing". In such a case some reconciliations will occur but they can be regarded as "informed adaptations" made with consultations with mentor sites &/or via the "hot" line.

There are a number of factors that will affect just where this **point of "optimality"** is located. If the staff have a great deal of **prior experience** in carrying out similar kinds of programs then a high degree of specificity may not be necessary or even desirable. Indeed, to tie the hands of an experienced person may even be counterproductive. Alternatively, if there is no prior experience then some considerable degree of specificity may be both necessary and desirable, perhaps coupled with mentoring and feedback from early implementors.If there is an **urgency** for implementation then time may not permit for the development of specifics. An inexperienced staff coupled with a lack of specificity could lead to dire results unless some appropriate efforts are made to coordinate and calibrate their activities. An organization's **tolerance for reconciliations versus mutations** may affect the location of the optimum. This tolerance reflects to whom and for what they are accountable. If they are to foster innovations, then mutations are likely more tolerable than are reconciliations. Conversely, if they are to carry out a pre-defined model, then reconciliations are probably more tolerable than are mutations.

Finally, an organization's cultural **values concerning conformity versus individualism** may play an important role in determining just how much specificity is desirable or even tolerable. Organizations that have historically placed a premium on individualism may have great difficulty in obtaining adherence to a specific plan while those that value conformity may have to provide a good deal of specificity and even oversight in order to allay staff anxieties about "not doing the right thing".

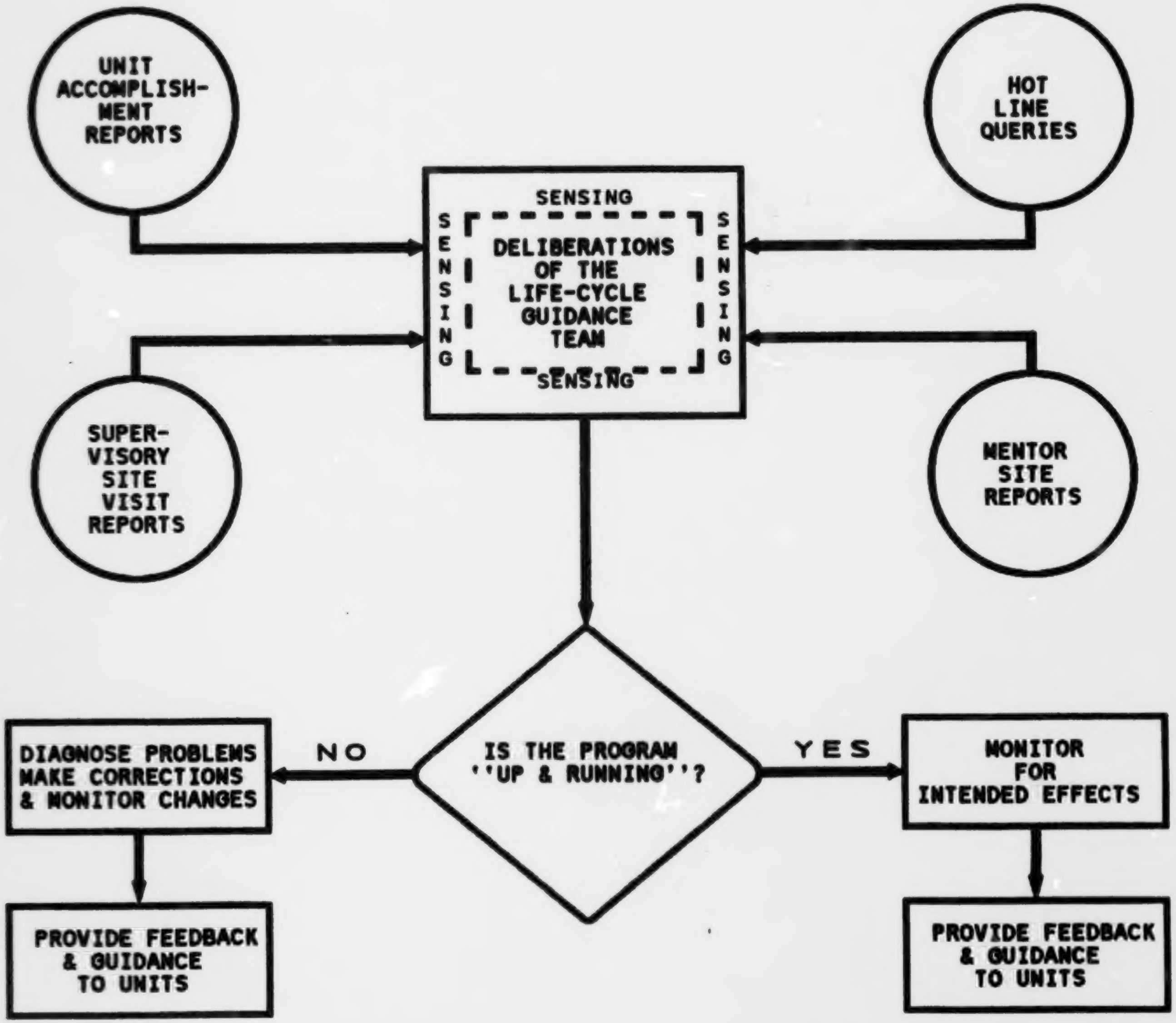
o Other Factors Affecting Implementation

A number of staff and organizational factors can also play a role in the implementation process. Corwin (1983) notes that some changes can be introduced through staff inadvertence - these he calls **"slippages"**. Kettner et al. (1990) identify a phenomenon called **"drift"** which can occur when, in carrying out a program, the staff gradually adapt the program to better meet their own needs and in so doing may move away from the needs of clientele. Both authors serve to remind us that the question of "when is a program up and running" has no final answer. It is only through regular monitoring of the program that one can speak to its fidelity of implementation.

Up to this point we have not taken much note of the fact that this program is being or will be implemented as part of an ongoing organization that sponsors many other programs as well. Scheirer (1987) identifies six **organizational components** which can affect the extent of implementation. They are:

- o **Nature of the Program** - how much of the developmental work is done before implementation as opposed to its being done during or as part of implementation?
- o **Qualities of Clients** - do the intended clients have the necessary prerequisites to benefit from the program (e.g. educational background & training, willingness to participate, transportation, etc.).
- o **Characteristics of Program Deliverers** - are there individual differences among staff members (e.g. training, education, values, attitudes, motivation for change, outdated notions of how the program should work,prior negative experience re management support & follow-through) that may impede implementation? Or, are there substantial costs in the change-over process (e.g. new procedures, technology, worker relationships or overload, devaluation of expertise, etc.) that may impede implementation?
- o **Operating Aspects of Work Units** - is the new program compatible with established ways of doing things or is a substantial change-over required? Are the informal work norms (informal standards of behavior) and supervisors supportive of the new program?
- o **Overall Organizational Structure** - does the organization as a whole support the new program (e.g top-level backing and operational participation in decision making, adequate resources for equipment, space, training, etc.)?
- o **Environmental Pressures** - are there forces in the environment that can create instabilities for the program &/or staff (e.g. unstable funding sources, regulating agencies, competing priorities, community opposition, conflicting values among

Figure 11.2 Forms of Feedback Provided to The Life-Cycle Guidance Team to Determine Status of Implementation


UNIT ACCOMPLISH-MENT REPORTS
HOT LINE QUERIES
SENSING
DELIBERATIONS OF THE LIFE-CYCLE GUIDANCE TEAM
SUPER-VISORY SITE VISIT REPORTS
MENTOR SITE REPORTS
IS THE PROGRAM ''UP & RUNNING''?
NO
YES
DIAGNOSE PROBLEMS MAKE CORRECTIONS & MONITOR CHANGES
MONITOR FOR INTENDED EFFECTS
PROVIDE FEEDBACK & GUIDANCE TO UNITS
PROVIDE FEEDBACK & GUIDANCE TO UNITS

different organizational levels, etc.)?

Such concerns will also form part of the LCGT's deliberations but may not be supported by formal reporting or information. More likely such concerns may appear through informal means or networks. As an information source this might be called "sensing" since it represents their "sense of the situation/organization" that they bring to their deliberations at that time.

The functioning of the LCGT to determine the status of program implementation is portrayed in Figure 11.2.

The matter of determining effects from early returns is discussed in the next chapter. It could just as appropriately be discussed in this chapter since monitoring for intended effects and monitoring for program implementation can play back and forth on one another - the lack of intended effects leading to program changes and the subsequent monitoring of these changes to see if they are put in place and then, with what effects.

12. Maintaining and Improving the Program

This chapter is concerned with sustaining the intended effects of the program and identifying and infusing into it practices that will enhance efficiency &/or effectiveness. In this phase the Life Cycle Guidance Team (LCGT) continues to perform oversight functions but in contrast to the prior phase, its' focus now is concerned with intended effects or enhanced effects rather than just implementation. First however, the use of early returns as a monitoring device for intended effects is examined.

12.1 What Do "Early Returns" Tell Us Concerning Clientele Benefits?

As noted earlier, if there is a graduated rate of implementation then some information can be obtained early on about clientele benefits from the sites that are the first ones to implement the program. Such information should enable the LCGT to determine whether or not the program is on target in terms of intended effects. If the intended effects are occurring and further monitoring of successive sites shows that this trend is continuing, then the program can be considered "up & running" and the next stage can be entered. However, if the intended effects are not occurring then the LCGT has to make some diagnostic decisions about why they are "off-base" and what remedial steps need to be taken. The bases for these diagnostic decisions are the barriers that are encountered (either anticipated or not) and what has been or might be done about them. For this aspect of implementation, the barriers must be occurring in association with Main Events 10-13 in the illustrative Program Logic Model (viz. from Provide Educational Experiences to KASA Change to Behavior/Practice Change to Consequences). To enable Diagnostic Decisions to be made and Corrective Actions to be taken, information needs to be collected from clientele on what they perceive the barriers to be for them, in a form such that they (the barriers) can be classified into these Main Events. This may dictate a specific kind of format or probing that elicits responses for the classification system. Examples of these are:

Barriers	**Diagnostic Decisions**	**Corrective Actions**
Some systematic segment of the target audience (e.g. most needy, less affluent, minority, non-English speaking, etc.) is not completing the program.	Examine program content & process for specifics that are involved in "dropping-out"; talk with "drop-outs".	Recalibrate &/or restructure Tailor efforts & materials to specific needs
Some systematic segment of the target audience	Examine program content & process for specifics that create learning/	Recalibrate &/or restructure Tailor efforts & materials

(e.g. most needy, less affluent, minority, non-English speaking, etc.) is not benefitting (showing KASAB change) as much as the others.	practice problems; talk with those affected.	to specific needs

12.2 Full Scale Implementation & Monitoring for Intended Effects

Once the program can be considered "up & running" (fully implemented) the LCGT will give greater focus to monitoring for intended effects. The following forms of information will provide much of the basis for its' deliberations:

- o **Clientele Benefits** - results of the 3rd party surveys of clientele will be forwarded in a form that allows aggregation across units and the calculation of unit profiles

- o **Successful Practices** - staff will identify practices that they consider unusually effective/efficient or ineffective/inefficient in such a manner that individual, team or unit identities are not revealed. These practices can be forwarded to the LCGT for their analysis and synthesis, if necessary through a means that provides anonymity for the units as well as the staff members responding. Such results can be used to infuse new practices into the program as well as to provide guidance for staff training needs. They can also be used to identify structural problems in the program that may impede effective performance (e.g. mis-match of staff & client compatibilities, use of definitions/policies/practices that are exclusionary, etc.).

- o **Success Stories** - units will provide brief narrative descriptions to the LCGT of what they feel are examples of successes their staff has had in working with clientele, providing the program to new kinds of clientele,etc. These will usually focus on individual clientele, will be shared with other units and some will be included in the program and site newsletters.

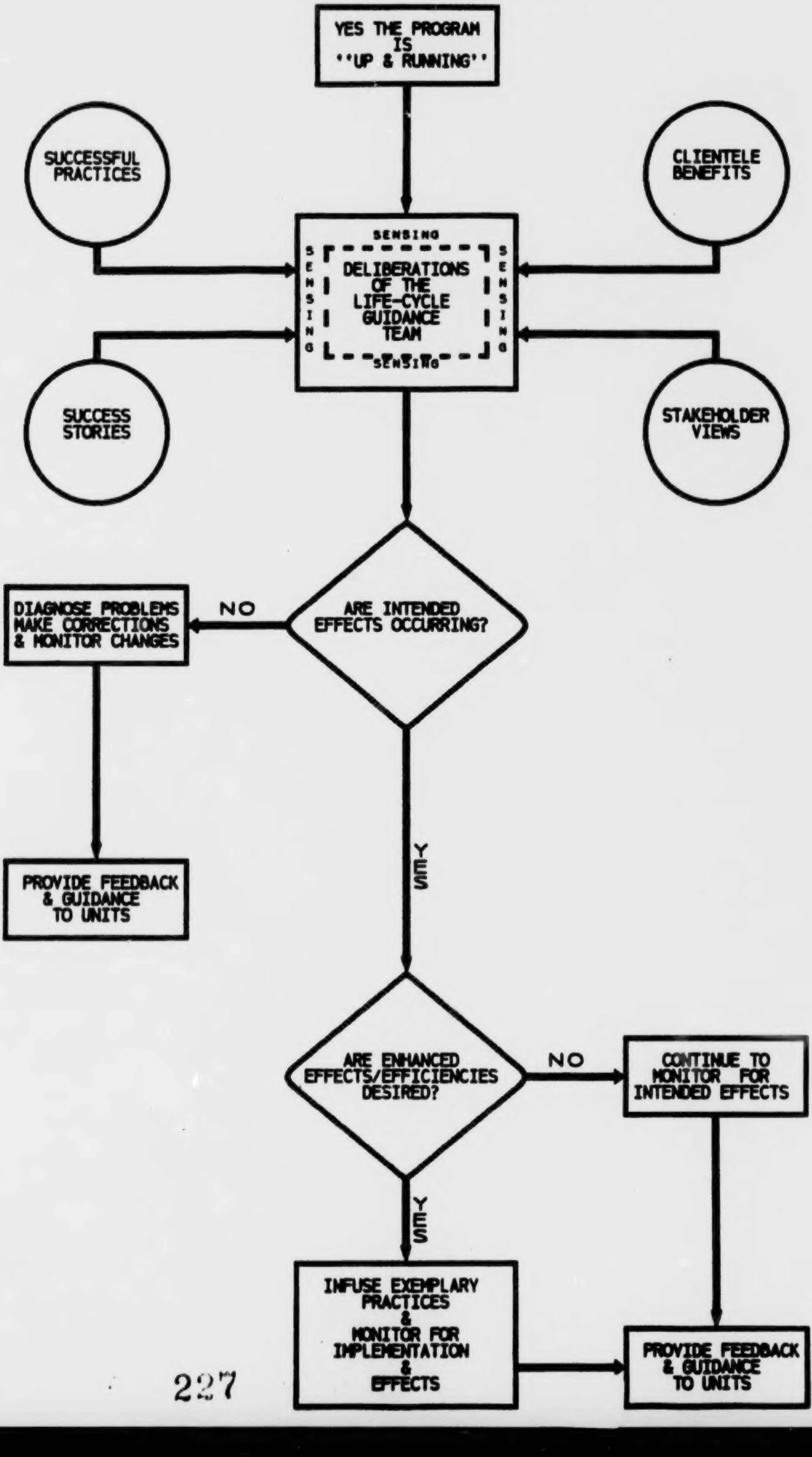
- o **Stakeholder Feedback** - those stakeholders (or a sample thereof) who have been recipients of the newsletter(s) will be contacted (via phone or face-to-face) to ascertain how the newsletter &/or contact with those associated with the program (providers &/or recipients) has helped them to understand the nature and possible effects of the program and, solicit their overall impressions as to how they feel the program is being provided.

Figure 12.1 portrays the process that the LCGT would go through. Again it is important to note the explicit provision of feedback to all of the program units as well as the sensing that takes place. The Diagnostic Decisions and Corrective Actions that the LCGT might

Table 12.1 Issues Addressed by the Life Cycle Guidance Team on Program Performance for the Different Kinds of Feedback

Successful Practices	Clientele Benefits
HOW UNUSUAL ARE THE PRACTICES IDENTIFIED WITH REGARD TO EFFECTIVENESS OR EFFICIENCY? IS IT POSSIBLE TO INFUSE SUCH PRACTICES INTO OR EXTINGUISH THEM FROM THE PROGRAM? IF SO, WHAT WOULD BE REQUIRED AND WITH WHAT EFFECTS?	WHAT DIAGNOSTIC DECISIONS WERE MADE? WHAT CORRECTIVE ACTIONS WERE TAKEN AND WITH WHAT EFFECT? WHAT STATEMENTS CAN BE MADE CONCERNING CLIENTELE BENEFITS?
Success Stories	**Stakeholder Views**
DO THE STORIES REFLECT UNIQUE, PERSONALIZED ACCOUNTS OF HOW CLIENTELE BENEFIT FROM THE PROGRAM? ARE THESE STORIES TESTIMONIALS FROM CLIENTS THEMSELVES? HOW MIGHT THESE STORIES BE USED TO COMMUNICATE PROGRAM ACCOMPLISHMENTS?	HAVE THEY RECEIVED THE NEWSLETTER? HAVE THEY READ THE NEWSLETTER & IF SO, HAVE THEY FOUND IT USEFUL IN DEVELOPING THEIR UNDERSTANDING OF THE PROGRAM? HAVE THEY RECEIVED PERSONAL CONTACTS FROM PROGRAM STAFF OR CLIENTELE & IF SO, HOW USEFUL HAVE THEY FOUND THEM IN DEVELOPING THEIR UNDERSTANDING OF THE PROGRAM? HOW ACCURATELY DO THEY PERCEIVE WHAT THE PROGRAM IS TRYING TO ACCOMPLISH? WHAT ARE THE GAPS IN THEIR UNDERSTANDING AND HOW MIGHT THEY BE RECONCILED?

Figure 12.1 Forms of Feedback Provided to The Life-Cycle Guidance Team to Determine Status of Intended Effects


YES THE PROGRAM IS ''UP & RUNNING''
SUCCESSFUL PRACTICES
CLIENTELE BENEFITS
SENSING
DELIBERATIONS OF THE LIFE-CYCLE GUIDANCE TEAM
SUCCESS STORIES
STAKEHOLDER VIEWS
ARE INTENDED EFFECTS OCCURRING?
NO
DIAGNOSE PROBLEMS MAKE CORRECTIONS & MONITOR CHANGES
PROVIDE FEEDBACK & GUIDANCE TO UNITS
YES
ARE ENHANCED EFFECTS/EFFICIENCIES DESIRED?
NO
CONTINUE TO MONITOR FOR INTENDED EFFECTS
YES
INFUSE EXEMPLARY PRACTICES & MONITOR FOR IMPLEMENTATION & EFFECTS
PROVIDE FEEDBACK & GUIDANCE TO UNITS

make are described under "early returns".

The deliberations of the LCGT may take different forms depending upon the class of feedback information that they are dealing with. Some possible forms of deliberation are given in Table 12.2.

As a result of their deliberations the LCGT will develop ideas about the performance of the program and of the staff as well as how both might be improved. The group will also want to develop some incentives to encourage the adoption of exemplary practices if the decision is made to infuse them into the program.

It is apparent from the preceding discussion that only through continued monitoring can the program be regarded as **implemented so as to yield clientele effects**.

In the next chapter we examine different types of program redirection and their rationales.

13. Redirecting the Program

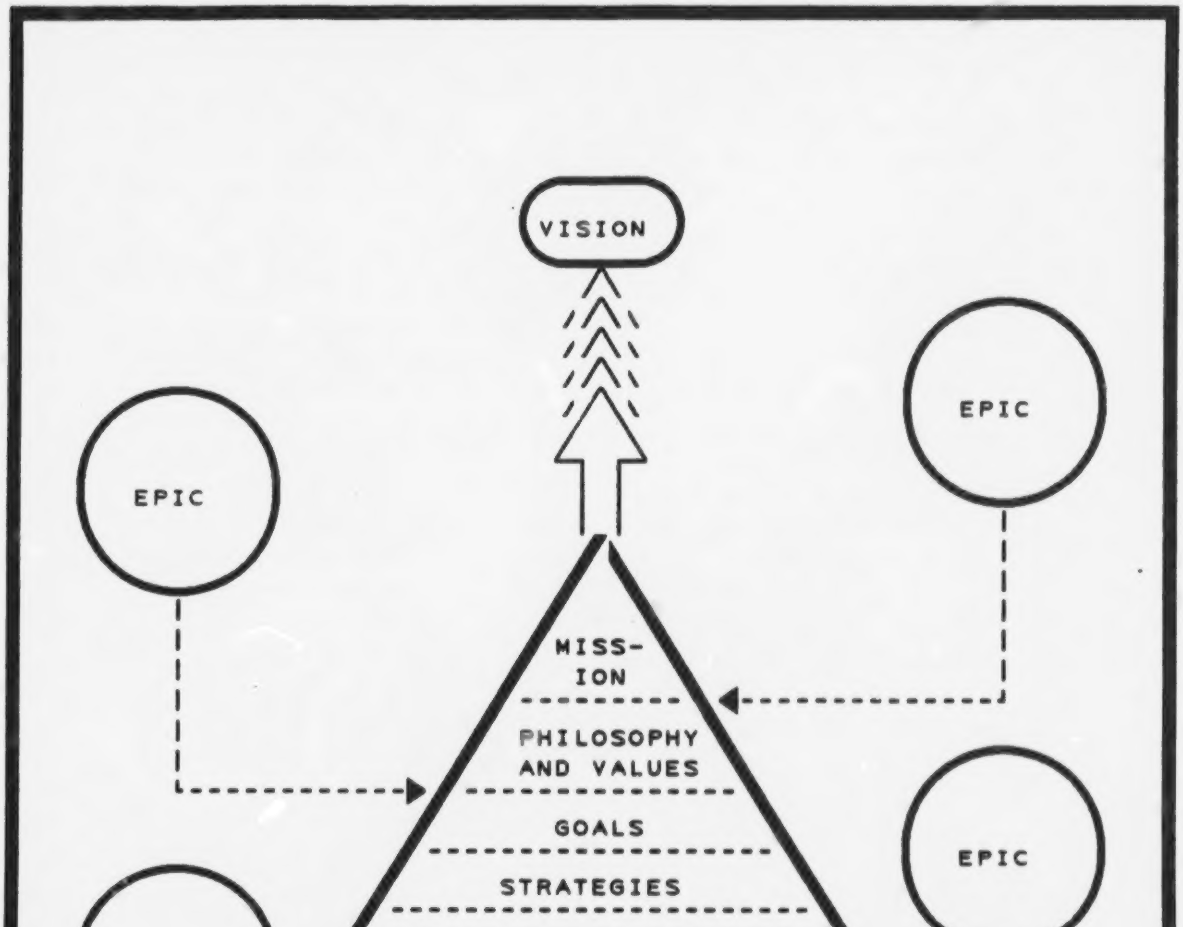
All too often programs' candidacy for redirection are closely tied to variations in funding cycles and funding levels. When times are good the sensitivities to redirection may not be great. But, when funds become increasingly scarce the sensitivities to redirection are greatly heightened and it is not uncommon for reductions to be made in whatever is most convenient, at that particular point in time. Such actions may be unfortunate for both clientele and the organization in the longer run and may not reflect the kinds of decisions that would have been or should have been made had less of a "crisis mentality" prevailed. In this chapter we outline some procedures that may be followed to arrive at a more orderly and thoughtful way to deal with program redirection.

13.1 An Hierarchical Framework for an Organization

One can readily encounter a great deal of confusion concerning the use and nature of the relationship among such concepts as mission, goals, strategies, programs, objectives, etc. What should be called what and how do they relate to one another? Figure 13.1 presents one way of organizing and thinking about these concepts. A vision for the organization contains a short statement of how the organization will function effectively in the future viz. what it would like to become (Bryson, 1990). A mission statement is a justification for the current existence of an organization (Bryson,1990). For what purpose or purposes does the organization exist? What societal needs does it fulfill? Bryson (1990) notes that clarifying and codifying a mission statement can help reduce conflict in an organization, aids discussion and helps to channel efforts in productive ways. Such a statement can also serve as a source of inspiration to employees and other stakeholders. Accompanying the mission statement is often found a statement of the organization's philosophy and values usually articulating how they regard clientele, other organizations and one another. Goals are broad ends towards which efforts are directed. They may at times be numerical in nature, e.g. by the year 2000, 75% of all farmland will be subject to Integrated Pest Management procedures.They may also be oriented towards the vision or serve as bridging mechanisms for moving the organization in that direction. Strategies are the broad areas of effort put forth to achieve these goals.Programs are specifically directed efforts that make up the strategies. Policies are listed with programs since they often play back and forth on one another. For example, it may be the policy of an educational organization to not provide any services unless they comprise a necessary part of an educational program. Objectives can be thought of as the next level of detail in a program while activities are the means by which objectives are attained, propelled of course by the necessary resources. Activities most often form part of a program. However, there may be times when they stand alone. For example, an educational organization may have a marketing activity which in itself does not have any educational purpose other than to maintain the visibility of the organization.

All of the levels in this hierarchy are profoundly affected by emerging problems, issues or concerns (called EPIC's for short). EPIC's can transform the vision or mission and can

Figure 13.1 An Hierarchical Framework for an Organization


VISION
EPIC
EPIC
MISSION
PHILOSOPHY AND VALUES
GOALS
STRATEGIES
POLICIES AND PROGRAMS
OBJECTIVES
ACTIVITIES
RESOURCES
EPIC
EPIC
EPIC

EPIC-EMERGING PROBLEM, ISSUE OR CONCERN

shrink or expand the organization in a variety of ways. As we shall see later in this chapter they can also have a profound effect on program redirection - just what gets redirected and in what ways. We shall also see that redirections are often made at the activity level as well as at the program level.

13.2 Why & How Are Programs Redirected?

Programs can be redirected in a variety of different ways and for a number of different reasons. They can be redesigned, resulting in consolidation or expansion, perhaps with new functions added or old ones deleted. Or, they can be phased-out completely so that they cease to exist after a designated point in time. Another option, not often mentioned, is that they can be transferred to the sponsorship of another organization in whole or in part. An extreme case of this latter possibility is for the parent organization to **create** an organization which will assume sponsorship for the particular program. We shall consider examples of each in the sections that follow.

But, one might ask, why would an organization want to redirect its program(s)? The first and most optimistic answer is that the problem or need has been ameliorated to such an extent that the program as currently constituted is no longer relevant. A second possibility is that other problems have arisen which are of greater priority than the one addressed by the current program. In the extreme case this latter possibility could lead to zero funding of the program and hence a total phase-out. A third possibility is that the mission of the organization has changed so that the program is no longer one the organization should be sponsoring. Alternatively, the program or certain portions of it may have evolved in ways that put it outside the mission of the organization. Similarly, programs can be expanded because they are doing an excellent job and there are still many clientele that need assistance. Or, a program can be a stunning failure and fully merit phase-out.

In Table 13.1 we attempt to systematize the types of redirection and identify an organization's reasons for doing so. Inspection of this table shows that the reasons or rationales for program redirection can vary considerably. A common cause for a change in the level or nature of the effort is a shifting priority for the program. Three others that are closely interrelated focus on increasing efficiency, avoiding duplication or combining resources/expertise. Whether a program or parts of it are related to the current mission can be an important reason for getting rid of it by phasing it out or transferring it to others. The needs of clientele are an important reason for changing the program or expanding its' functions. If the needs of clientele are met when the problem is ameliorated, then this becomes an important reason too, for downsizing, consolidation or phase-out. Conspicuously absent from this list are concerns about budgets, funding or effectiveness. While failure can lead to phase-out, program success doesn't necessarily lead to program expansion. Indeed, since programs are expected to be successful - "to work" - such performance, by itself, would not be a basis for expansion. Funding concerns are not directly apparent because they affect the priority setting process which in turn forms the basis for many decisions concerning program redirection. Since the priority setting process is so important it behooves us to examine it in more detail. But first, let us

Table 13.1 Types of Program Redirection & Rationales

Type of Redirection	Rationales
Change in Level of Effort	
Phase-up	Meet Needs of Greater # of Clientele
Phase-down	Problem Ameliorated Decreasing Priority
Phase-out	Problem Ameliorated Decreasing Priority Program Failure Not Part of Mission
Change in Nature of Effort	
Expanded Volunteer Roles	Meet Needs of Greater # of Clientele Increase Efficiency
Narrow Focus & Intensify Efforts	Increase Clientele Effects
Broaden Focus & Dilute Efforts	Serve More Clientele
New Functions Added	Meet Additional Needs of Clientele Increasing Priority Increase Efficiency
Consolidate With Other Programs	Problem Ameliorated Decreasing Priority Increase Efficiency
Change in Sponsorship of Effort	
Co-Sponsorship With Other Organizations	
Without Disengagement	Combine Resources/Expertise Avoid Duplication
With Gradual Disengagement	Not Part of Mission Avoid Duplication
Transfer To Other Organizations	
All Functions With An Existing Organization	Not Part of Mission Avoid Duplication
Some Functions With An Existing Organization	Not Part of Mission Avoid Duplication
All Functions By Creating An Organization	Not Part of Mission Decreasing Priority
Some Functions By Creating An Organization	Not Part of Mission Decreasing Priority

consider some actual examples of some of the types of redirections listed in Table 13.1.

13.3 What Are Some Actual Examples of Program Redirection?

Imagine an educational organization that provides a service as part of an educational program in order to facilitate clientele acquiring certain practices. However, once clientele have instituted these practices and the practices have become fairly routine, the organization no longer wants to continue providing the service. As a result, the organization gets someone else to provide the service even if they have to train a cadre of people to be the service providers. Three different examples arise out of work in Extension: soil testing; scouting for pest management; and, master gardeners. Let us consider each in turn.

o Soil Testing

In the earlier years of Extension work, the testing of soil samples in order to determine their composition relative to what was needed for certain crops (e.g. acidity/alkalinity; nutrient & mineral levels, etc.) was often provided to farmers free of charge as an inducement for them to adopt soil testing practices and incorporate them in their cropping plans. Once adopted however, Extension no longer wanted to provide this as a service, even for a fee. Hence, such testing was turned over to a fee based laboratory (whether public or private).

o Scouting for Integrated Pest Management (IPM)

Integrated pest management entails the sampling of pest populations on crops to see if their concentration has exceeded a threshold value such that crop yields would be threatened. If they had not reached such a threshold then pesticides would not be applied thereby curtailing costs and avoiding the risk of polluting the air, ground &/or surface water. If yields were threatened however, pesticides would be applied in amounts appropriate for that concentration of pests, thereby avoiding excessive dosages. The determination of these thresholds is made by "scouting" a field using sampling techniques to determine what existing concentrations are. In the early years of IPM, Extension would often provide "scouting" services as part of its' program to get producers to adopt IPM techniques. However, once IPM practices were established, Extension turned such efforts over to private entrepreneurs - often training them so as to be able to provide the services.

o Master Gardeners

In California, the Master Gardener (MG) program was instituted in response to a dramatic increase in calls to the county office from new homeowners concerning a wide variety of home gardening problems (Smith,1989a). Indeed, the volume of calls was so great that the county staff could not begin to handle them all, let alone perform their other duties. The MG concept entailed giving volunteers training in home horticulture techniques and practices. Each volunteer would receive a number of hours of training in return for which they would provide a number of hours of service (e.g. 40 hours of training for 100 hours of service) consulting with homeowners about their gardening problems. Once the MG program was established the county agent's job changed dramatically from one of a technical consultant to homeowners to one of a manager of a large cadre of MG's. The program engendered a great deal of commitment from the volunteers with many staying long beyond their initial number of hours. As the program matured, it developed its own governance or oversight structure with the more experienced volunteers providing guidance to the less experienced, thereby easing up on some of the agents' involvement in supervision. The MG program also resulted in a number of interesting spinoffs. Social networks were formed. A Master Gardener Society was founded with the society having an annual state-wide meeting that was well attended, with volunteers covering their own expenses. Some of the volunteers even went into business for themselves as home horticulturists.

13.4 How Is the Redirection of a Single Program Determined?

Many **factors** both **internal and external** to a program can affect its future direction. Those that are internal to the program focus on the organization's mission, the current status of the problem that was the impetus for the program initially, and the performance of the program relative to the problem. Figure 13.1 attempts to portray these kinds of considerations. No matter what the performance of the program is, the question is raised as to whether or not it is within the current **mission** of the organization. If the mission has changed or the program has evolved in ways that put it outside the mission, then it becomes a candidate for phase-out or transfer-out to another organization. If it is within the mission, then the focus is turned to the **current status of the problem**. The problem could have been eliminated, improved, remained the same or gotten worse. All of these statuses have implications for how the program might be changed or redirected. Interpretation of the status of the problem can give specific guidance as to such changes. Table 13.2 gives different interpretations of each status and the actions that might be taken. If the problem no longer exists then obviously there is no longer a need for the program. However, if the problem has been eliminated because of the program, then activities may have to be put in place to sustain these changes even though many parts of the program or even the program itself, are no longer needed. Similar considerations apply if the problem has been ameliorated in the program's target areas. In this case one might want to move the program on to new target areas while providing some activities to sustain the changes in the areas being left behind. However, if the problem has been only mildly improved in the target areas, then some increased or expanded efforts might be considered. If the problem remains the same, even in the target areas, then the program may be a failure and should be phased-out. However, if other clientele needs are muting the program's effects or the level of effort is not sufficient, then one may want to add new functions to the program or put forth more effort. Similar considerations apply if the problem has worsened.

But who we might ask should perform these deliberations?

Figure 13.2 Changes in Program Direction Depending on Program Performance, Organizational Mission & Current Status of the Problem

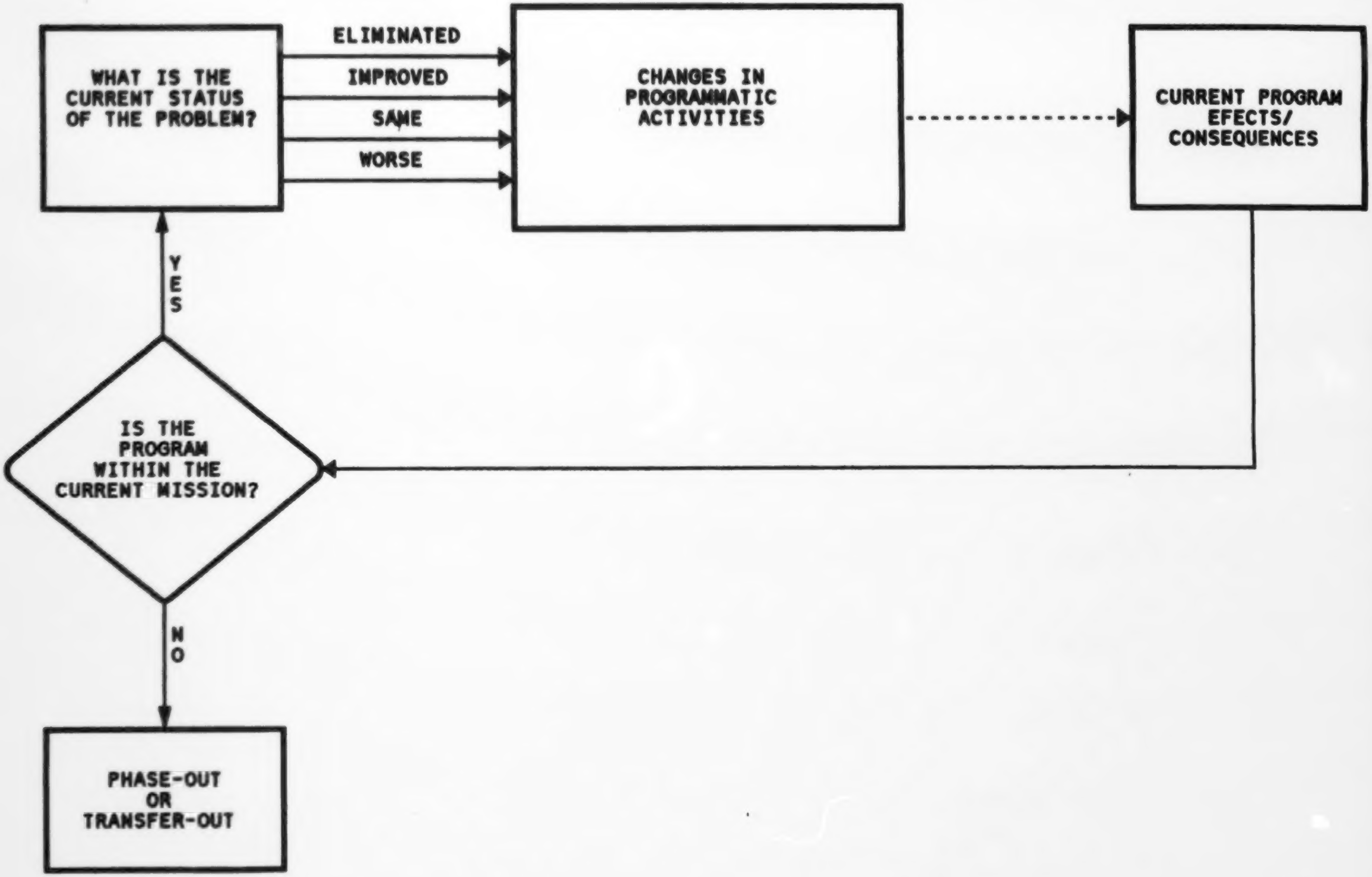

WHAT IS THE CURRENT STATUS OF THE PROBLEM?
ELIMINATED
IMPROVED
SAME
WORSE
CHANGES IN PROGRAMMATIC ACTIVITIES
CURRENT PROGRAM EFECTS/ CONSEQUENCES
YES
IS THE PROGRAM WITHIN THE CURRENT MISSION?
NO
PHASE-OUT OR TRANSFER-OUT

Table 13.2 Changes in Program Direction Depending on Program Performance & Current Status of the Problem

Current Status of the Problem	Explanation/Interpretation	Proposed Action(s)
1. ELIMINATED	* NO LONGER A PROBLEM	* PHASE-OUT
	* PROBLEM ELIMINATED BUT EFFORTS MUST BE MADE TO SUSTAIN THESE CHANGES	* PHASE-OUT OR TRANSFER-OUT NO LONGER NEEDED ACTIVITIES ** CONTINUE SUSTAINING ACTIVITIES PERHAPS IN MODIFIED FORM OR CO-SPONSOR WITH OTHER ORGANIZATIONS
2. IMPROVED	* PROBLEM AMELIORATED IN TARGET AREAS BUT REMAINS THE SAME IN IN OTHERS	* MOVE TO NEW AREAS &/OR INCREASE LEVEL OF EFFORT TO SERVE MORE AREAS ** PROVIDE SUSTAINING ACTIVITIES (IF NEEDED) IN TARGET AREAS
	* SOME IMPROVEMENTS SEEN IN TARGET AREAS BUT PROBLEM REMAINS THE SAME IN OTHERS	* INCREASE LEVEL OF EFFORT &/OR EXPAND VOLUNTEER ROLES IN TARGET AREAS
3. SAME	* PROGRAM FAILURE	* PHASE-OUT
	* OTHER CLIENTELE NEEDS MUTE PROGRAM EFFECTS IN TARGET AREAS	* ADD NEW FUNCTIONS/ACTIVITIES TO DEAL WITH SUCH NEEDS PERHAPS THROUGH CO-SPONSORSHIP
	* LEVEL OF EFFORT IS INSUFFICIENT IN TARGET AREAS	* INCREASE LEVEL OF EFFORT PERHAPS THROUGH CO-SPONSORSHIP &/OR FOCUS EFFORTS MORE INTENSIVELY
4. WORSE	* PROGRAM FAILURE	* PHASE-OUT
	* OTHER CLIENTELE NEEDS EXACERBATE PROBLEM IN TARGET AREAS	* ADD NEW FUNCTIONS/ACTIVITIES TO DEAL WITH SUCH NEEDS PERHAPS THROUGH CO-SPONSORSHIP
	* LEVEL OF EFFORT IS INSUFFICIENT	* INCREASE LEVEL OF EFFORT PERHAPS THROUGH CO-SPONSORSHIP OR FOCUS EFFORTS MORE INTENSIVELY OR PHASE-OUT/ TRANSFER-OUT

13.5 What Role Does the Life Cycle Guidance Team Play in Program Redirection?

The Life Cycle Guidance Team (LCGT) has carefully nurtured the program up to this point and would be a natural to perform such deliberations subject to one proviso. If they are so emotionally attached to the program that they can no longer deliberate about it in an impartial manner, then the composition of the team would need to be altered to give it greater objectivity or the functions would have to be performed by a deliberative body that is not so involved with the program. If an organization periodically reviews all of its programs with a focus on their future direction, then many of these functions will be performed by the group that is formed to carry out this review. Concerns that would enter into their deliberations would focus on a variety of factors **external** to the program. Let's see what some of these might be.

13.6 What Factors Affect the Redirection of All of an Organization's Programs?

Imagine a deliberative body that is given the task of reviewing all of an organization's programs to decide what the future status of each might be. What kinds of concerns might it focus on in the course of its' deliberations? Let us assume that the group adopts a systematic set of procedures [as specified by Lambur & Burtner(1993) based on the work of I.McMillan (1983)] to conduct this review, as follows:

o **A clear, up-to-date mission statement must be available.** If such is not available then one must be developed. If one is available but is lacking in clarity or specificity then it needs to be revised and refined. It is recommended that key stakeholders to the organization be involved in this process.

o **A program/activity profile is developed.** This profile involves the identification of the who, what, when, where and why for the program or activity.[Activities can be included too since not all of them are encompassed by programs.]

oo Who is served (clientele) by whom (staff) and who can improve this process (stakeholders)? What steps are involved in carrying out the program or activity and with what costs?

oo When during the year does the program or activity take place (all year, seasonally, intermittently)?

oo Where does the program or activity take place (county, district, state; fixed or mobile)?

oo Why was the program or activity started (what problem was it/ is it addressing)?

o **Profiles are reviewed and consensus reached.** The profiles are widely reviewed by staff and stakeholders with adjustments being made to reach consensus on a final set. These adjustments may entail combining, dividing or altering parts of a profile so as to reach agreement on a final set.

o **Profiles are ranked and targeted.** Each profile is evaluated on three dimensions of: (1) program attractiveness; (2) competitive position; and, (3) alternative coverage, using the following kinds of criteria:

Table 13.3 Criteria & Categories for Classifying Programs According to Their Strategic Importance

Program Attractive -ness	HIGH	HIGH	HIGH	HIGH	LOW	LOW	LOW	LOW
Competitive Position	STRONG	STRONG	WEAK	WEAK	STRONG	STRONG	WEAK	WEAK
Alternative Coverage	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Strategic Category	AGGRESSIVE COMPETITION 1	AGGRESSIVE GROWTH 2	AGGRESSIVE DIVESTMENT 3	BUILD STRENGTH OR SELL OUT 4	BUILD UP BEST COMPETITOR 5	SOUL OF THE ORGANIZATION 6	ORDERLY DIVESTMENT 7	FOREIGN AID OR JOINT VENTURE 8

Adapted from M. Lambur & J. Burtner (1993) & I.McMillan (1983).

Table 13.4 Essential Features of Strategic Program Categories

1. AGGRESSIVE COMPETITION	2. AGGRESSIVE GROWTH	3. AGGRESSIVE DIVESTMENT	4. BUILD STRENGTH OR SEL
o There are a # of other agencies competing for clientele but ours has a clear superiority oo Engage in "share-building" to ease them out; may provide growth base for resources & other programs	o The field is open for our organization oo Expand quickly to consolidate strong position; lack of such a candidate may question viability of mission	o There are many competitors providing similar or superior services oo Eliminate through phase-out or transfer-out	o Our agency is in a weak o position & lacks resource strengthen position oo Eliminate through phas or transfer-out

5. BUILD UP BEST COMPETITOR	6. SOUL OF THE ORGANIZATION	7. ORDERLY DIVESTMENT	8. FOREIGN AID OR JOINT VENT
o Non-productive competition for "share" of an unattractive clientele base oo Eliminate through phase-out or transfer-out	o We are the only actor on the scene oo Stay the course for now but keep the # of these low	o Others can do this better & should be doing it oo Eliminate through phase-out or transfer-out	o We neither want to nor shou doing this - but it needs d so help someone else do it oo Eliminate through phase- or transfer-out

Adapted from M. Lambur & J. Burtner (1993) & I. McMillan (1983).

oo Program Attractiveness. This dimension reflects the degree to which the program is attractive to the organization as a basis for current and future programming. Criteria to be considered are:

- congruence with mission
- mandate
- programmatic fit
- existing expertise & resources
- support base (financial & political)
- education vs. service
- complementariness with other programs/activities
- clientele base
- volunteer appeal
- measurability of results
- prevention vs. treatment

oo Competitive Position. This dimension focuses on the extent to which the organization has superior potential over other organizations to carry out the program/activity. Criteria to be considered are:

- delivery system
- funding history
- "track" record
- quality of program/activity
- research skills
- technical skills
- organizational skills

oo Alternative Coverage. This dimension is concerned with the extent to which other organizations are involved in the delivery of the same or similar kinds of programs/activities. Criteria to be considered are:

- coverage is low if there are no other large organizations or few small ones attempting similar efforts

Once the ranking has been completed each profile can be classified into one of eight categories as indicated in Table 13.3. [The reader will note that the use of the criteria resulted in a profile being assigned a high(strong) or low(weak) value for each of the three dimensions.] The essential features of the eight categories are described in Table 13.4.

When all of the profiles have been categorized those that are in the phase-out/transfer-out categories will need to be reviewed for possible constraints in doing so. For example, are there legal issues, public domain considerations, no existing organizations to transfer to (so one has to be created), high versus low expenditure features, etc. that have to be dealt with?

o Results of the categorization are communicated to administration

o Decisions are made concerning those to be eliminated

o Decisions are communicated to the organization

o Management of phase-out/transfer-out process recognizing the importance of two components: **emotional** - the personal or affective aspect; and, the **technical** - the details involved in doing so.

13.7 Who Should Guide the Categorization Process?

Whether the preceding process or some other is used, the question remains as to who in the organization is qualified and should be engaged to perform these functions? Lambur & Burtner (1993) recommend that such a deliberative group be composed of about 8 persons who: represent various groups and levels within the organization; have a broad based view of the organization; are respected and trusted by others; have strong interpersonal, communication and group problem-solving skills; reflect a balance between those that are task-oriented and those concerned with individual and organizational well-being; have awareness of resources outside the organization; and, are diverse in ways that are of importance to the organization. If there are a number of Life Cycle Guidance Teams in operation then they too should have some representation on this group as well but there must be a balance so that no one has a particular advantage.

This deliberative body is responsible for the profiles being prepared on each program/activity. Whether they actually do this work themselves or have others do it, they are responsible for upholding the "integrity" of the profiling process. For example, profiles should be prepared with information that is equally **accurate** and **comparable** across all programs/activities. The profiles should be completed in a **consistent** manner for all programs/activities, etc. Similarly, they may reach out to others to assist in their deliberations about the targeting and ranking. However, all involved must apply the standards in a consistent manner across all programs, etc.

Lambur & Burtner (1993) call such a deliberative group a **"Transition Management Team"** (TMT) to distinguish the fact that by going through a process that results in "letting go" of certain programs the organization itself is inducing change that can be disruptive and even traumatic. They cast such a procedure in the context of organizational change and provide a variety of procedures for determining readiness for such a procedure as well as for phasing-out programs. To assist them in the targeting and ranking process the TMT may hold a workshop in which a large number of people, both internal and external to the organization, are invited to participate (Weisbord calls this the "open systems" approach to organization redirection, 1987). Such a workshop may entail 2 days and involve up to 100 persons including staff and administrators, stakeholders and clientele. Following an overview of the process, workgroups of 5 to 10 people are formed (varied with respect to background) with the profiles being divided among the workgroups so that each group gets an equal number that are diverse in content. The number of profiles may range from 50 to 200. Each group has a facilitator to lead its discussion of the profiles and each participant has an up-to-date copy of the mission statement. Once all of their profiles have been ranked they are taped to the wall under the heading of one of the eight categories into which they were classified. After all groups have finished ,a "walk-about" period is allowed during which time each participant can register their objection to the categorization by placing a colored dot on the profile. Those profiles with dots are discussed among the entire assembly. The workgroup that did the categorization gives their reasons and then the persons who objected give their reasons. Profiles not receiving any dots are placed on a separate wall under their appropriate category while those receiving dots are taken off the wall, reshuffled and divided among the workgroups save that no workgroup gets its earlier profiles. Another iteration or two is conducted until virtually all of the profiles are categorized. It is likely that for some profiles agreement may not be attainable which may be due to different aspects of the activity being emphasized (e.g. education vs. service) or that the information provided was inadequate. Profiles from categories with implications for phase-out or transfer-out are divided equally among the workgroups who review all comments and arrive at a recommendation that is then shared with the full assembly. Although the work of the participants is completed upon completion of the targeting and ranking workshop, a great deal of work remains to be done by the TMT or its successor(s). For now divestment plans must be laid out in sufficient detail so that the programs/activities can be phased-out or transferred-out - tasks which may require considerable time and effort and which may involve others who were not part of the TMT.

14. Special Topics

This chapter deals with a number of special topics that are concerned primarily with different aspects of the modeling process or the development of the Educational Experience Profile (EEP). These include: using the matrix of educational effects to estimate expected levels of impact that the program will have on the target audiences; modeling 2 or more programs simultaneously; involving others through model verification; calibrating the model for different locales; and, using the model to develop individual and unit plans of work. In addition, programs as belief systems and their similarities and differences with projects are examined in more detail, the use of a theory of learning and stage/process models to guide the development of the EEP are reviewed; and, the use of performance incidents as a management tool is discussed.

14.1 Statements and Systems of Probabilistic Beliefs

In Chapter 1 we proposed that a program can be thought of as a theory that relates a set of organized activities with supporting resources to intended results. Further, we suggested that this theory can be thought of as a system of beliefs that are probabilistic in nature. Let us examine the kinds of statements that might be made about linking a single activity with an intended result or outcome and their implied probabilities (keeping in mind that the link may involve curricular materials, staff, level of effort or even stakeholders):

Belief Statements re: an Activity ---> Outcome Linkage	**Implied Probability**
o In similar situations in the past, this has worked..	High
o In my experience this has worked well	High
o Our best evidence suggests that this will work	High
o We believe that this will work	Medium
o We hope that this will work	Low
o We feel confident that this will work	Medium/Low
o We feel certain that this will work because	High
o This won't fail because	Medium/High
o This is bound to be a success because	High

Imagine now a program that is composed of dozens of these linkages each with its own belief statement and it becomes easier to see that **this theory is comprised of a system of beliefs**. It might be interesting to examine just what staff do in devising a program from the "belief systems" perspective.

14.2 A Comparative Analysis of Programs and Projects

Reference to standard dictionaries shows very few differences between the definitions of a "program" and a "project". Those differences that do exist attribute more sequencing or ordering of activities to "program" than to "project". However, both entail the notion of plan and schedule. In the definition of "program" used in this manual [a theory (which is in itself a system of beliefs that are probabilistic in nature) that relates a set of organized activities with supporting resources to intended results] the concept of project can be subsumed under that of "program". How then might "project" be considered as a specific type of program? Let us examine some dimensions along which they may differ:

o **Deliverables** - programs rarely have a fixed deliverable whereas projects nearly always do.

o **Duration** - projects usually exist over a shorter, specific time span than do programs and tend to be phased out once their deliverable has been accomplished. Programs, in contrast, tend to be cyclical in nature - coming up for review and renewal in a periodic manner, often associated with a budget or legislative cycle.

o **Problem-focused** - programs tend to be focused on the amelioration of problems moreso than do projects.

o **Scope & Complexity** - programs are usually of greater scope and complexity than are projects. However, there are notable exceptions.

o **Outreach** - programs usually have a greater outreach (#'s reached) than do projects. However, again there are notable exceptions.

o **Containment** - programs often encompass or fund projects whereas projects seldom encompass or fund programs although, they often contain sub-projects.

o **Innovativeness** - projects can be and often are more innovative than are programs - programs may sponsor projects to balance competing interests thereby appeasing both the proponents and opponents of change.

o **Stakeholders** - programs usually have a greater number and variety of stakeholders than do projects. Again, there are notable exceptions.

o **Constituency** - programs usually have a larger and more active constituency than do projects. Again, there are notable exceptions.

o **Expected Effects** - programs usually have greater expected effects than do projects - again with notable exceptions.

Having made all of these comparisons (and undoubtedly there are more), what then can we conclude about programs and projects. For a **project** we would qualify our definition so that a project becomes **a specific type of program that has a specified deliverable within a given time period**. Often project theorists (Kerzner, 1989) will also introduce notions of performance levels, budget levels, organizational structure, etc..However, for definitional purposes (as contrasted with operational purposes) we have not found this to be necessary.

14.3 Estimating the Level of Impact for Different Target Audiences Using the Matrix of Educational Effects

The Virginia Water Quality program design team was attempting to develop a common conceptual framework in order to bring together some 19 disparate programs. Once the matrix of Educational Effects had been developed for the 13 target audiences involved, the group felt that it would be useful for future programming efforts to estimate the level of effect they thought the integrated program would have with these audiences (Lambur and Stephenson, 1990). Through some discussion they reached a consensus on the H(igh), M(edium) and L(ow) ratings assigned to the different KASAB's in Table 14.1. Such results can be then used as a guide to levels of effort in the program development

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Table 14.1 Virginia Water Quality Expected Level of Impact for Different Target Audiences

	Level of Impact 1				
TARGET AUDIENCE	K	A	S	A	B
FARMERS:	H	H	H	H	H
HOMEOWNER:	H	H	L	L	L
YOUTH:	H	H	--	H	H
MUNICIPAL MANAGERS:	M	M	M	M	M
INDUSTRIAL MANAGERS:	L	L	L	L	L
MILITARY COMMANDERS:	L	L	L	L	L
ENVIRONMENTAL GROUPS:	M	M	M	M	M
WATERMEN:	L	H	L	H	L
PUBLIC:	H	M	L	L	L
LOCAL GOVT OFFICIALS:	H	H	--	H	H
DEVELOPERS:	H	L	L	L	L
STATE AND FEDERAL OFFICIALS:	H	H	H	H	H
AGRICHEMICAL SUPPLIERS:	M	M	M	M	M

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1 The level of impact refers to both what Extension has done and what Extension is going to do in one planning cycle.

H = High level of impact
M = Medium level of impact
L = Low level of impact

phase as well as the allocation of staff time in working with different audiences in the program implementation phase.

14.4 Modeling Two or More Programs Simultaneously

In Virginia their Water Quality design team tried to bring 19 programs into a common framework for future programming purposes (Lambur & Stephenson, 1990). In that effort the team was not concerned with maintaining the identity of each of the programs and for that many programs it would have been an almost impossible task. However, a smaller number of programs **might** be modeled simultaneously yet retain the identity of each, if they have some common goals or objectives. For example, in Maine two programs were modeled simultaneously that dealt with maximizing the independence of the elderly and another two that dealt with the development of community leaders (Killam, 1989;1990). Indeed, it may be considered a desirable result of the process to have one model that can be used to depict a number of different programs if such is achievable. If not achievable, the resulting models may be fairly similar. More time is required to model multiple programs and the results are usually more complicated even if one Logic Model can be used for all of them. This is so because the functional components may be somewhat different, especially for resources. If the same Logic Model can be used then differences in the functional components can be indicated by stars, asterisks, different colors, etc. If different Logic Models are required then the results may be even more complex. As a "rule of thumb" one should try to make the same Logic Model serve until it becomes apparent to the Facilitator and/or the group that one just won't do it all. An experienced Facilitator may come to this realization before the group does.

14.5 Alternatives in Model Verification and the Involvement of Others

The model verification process may be thought of not only as a means for checking on the extent to which the model "fits" the experience of others who do or may carry out the program but also as a means of involving them in what the design team has produced. Models can be verified by: (1) explaining the model(s) to other program providers, determining the extent to which it is reflective of their experience and modifying it accordingly*; (2) querying others through some kind of a more structured interview or survey; and, (3) observing the program(s) as it is actually carried out. Only the first alternative has been used to-date (which is also believed to be the most desirable) but in three somewhat different ways. In California's Master Gardener program and in Mississippi's 4-H program the uninitiated were introduced to the model (there were 3-4 such persons in each case) by the Facilitator (rather than a workgroup member, to avoid possible undue influence) and were able to make modifications which although minor, proved to be extremely valuable. For example, a way to reduce attrition among Master Gardeners and an overlooked way in which Agents and Volunteers affect youth were identified. In the Louisiana 4-H program design (Richard & Miller, 1992) a verification team of 6 agents and one administrator (who had not been part of the original team) was convened and introduced to the model by the Facilitator. They were able to relate to the model and its different aspects very readily. They made a number of constructive contributions which were incorporated into the model but did not result in substantial changes to it. In the Hawaii middle management 4-H program agents who had not been on the work group were introduced to the model and made substantial modifications to it. After this, potential volunteers were introduced to the then modified model and they in turn made modifications to it (note: this is also an interesting alternative to obtaining stakeholder viewpoints as described in the prior section). The resultant model and components might also serve as a means of introducing new staff or others to the nature of the program.

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* This can also be accomplished in part, by including a few new members in the second workshop session.

14.6 Calibrating the Model for Different Locales

We have seen how the design team comes to a common location and develops a model that is the product of their experiences. One might ask then how such efforts get tailored to the different locales in which they must operate. All of the modeling is sufficiently generic so that it can be calibrated appropriately to a number of different locales. For example, different levels can be specified for the effects indicators (e.g., x% of the target audience will be able to do thus and so) and different levels of effort can be specified for the implementation activities. If the design moves into a developmental phase then many such concerns would be dealt with there. This topic is also closely related to the next topic of developing unit and individual plans of work.

14.7 Developing Unit and Individual Plans of Work Keyed to Events and Activities

Individual plans of work--the who will do what when--can be integrated into events and activities by entering the person(s) name(s) under the activity and specifying timelines in days, weeks or months. If the activities are too general they can be broken out into tasks and then identify the individual(s) involved. The preparation of unit plans of work can also be a step in the process that either precedes or follows the preparation of the individual plans.

14.8 Meta- Analysis of the Properties of Program Logic Models

Program Logic Models can be thought of as having a number of different properties such as the number of main events, the number of activities and indicators for main events, the number and nature of barriers, barrier reductions, intervening events and spin-offs associated with each main event and its location in the sequence of events, the absolute and proportional distribution of resources across events, etc. A kind of secondary or meta-analysis (Rosenthal, 1984; Schwandt and Halpern, 1988) can be made of these properties both within a program to gauge their frequency and severity (e.g. how do the barriers change or stay the same as we work through pair-wise events in the Program Logic Model) as well as across programs to gauge their relative properties (e.g is there a common proportional distribution of resources or spin-offs among main events within and across Program Logic Models). Such analyses can provide guidance to a variety of staff: administrators as to common or structural problems; program developers as to problems they might program to avoid; and, researchers as to problems for which further research might be useful.

14.9 Social Cognitive Theory (SCT) as a Guide to the Development of the EEP

Many theories of "learning" do not lend themselves to use in specific, real life situations either because they are too general or allow for only a limited segment of the different kinds of "learning" of which humans are capable. One notable exception is the work of Albert Bandura and his colleagues (Bandura, 1991; 1988; 1986; Sims & Lorenzi,1992) on what is currently called "social cognitive theory" (formerly social learning theory). This theory emphasizes the acquisition of knowledge through the cognitive processing of information. In the following pages we summarize three aspects of SCT that Bandura feels are applicable to practical circumstances such as training and motivation (Bandura, 1988): (1) developing competencies through modeling (a process in which people learn through observing the behaviors of others so that they can change their own behavior without having to have the experience directly themselves); (2) influencing perceived self-efficacy (a set of beliefs about one's own ability "to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986)); and, the use of goal setting as a motivational device.

o Developing Competencies Through Guided Mastery Modeling

In this approach appropriate skills are modeled, then practiced under simulated conditions and then the observers (learners) are helped to apply the newly acquired skills in real life situations in ways that will enhance successful performance, as follows:

1. Complex skills are broken out into component sub-skills. Component sub-skills are then modeled via videotape in easily mastered steps that lend themselves to being combined in different ways for different purposes, using many brief examples. Modeling is enhanced if there is perceived similarity between the model and the modelers.

2. Simulated situations are provided so that the modelers can practice their skills. Corrective modeling is used as a form of feedback in order to assist modelers to improve their proficiency on sub-skills that need further mastery. They are practiced until a desired level of proficiency and spontaneity are attained.

3. Self directed successes are then sought through what is called "graded transfer". Newly acquired skills are first used in selected real life situations that are likely to produce success. Modelers describe their successes and critique where they ran into difficulties. As they gain greater proficiency and confidence they gradually take on more difficult real life situations.

o Enhancing Perceived Self-Efficacy (SE)

Since perceived SE affects what people will and won't undertake and how much effort they may put forth, attempts to build and enhance one's sense of SE may be considered desirable. Perceived SE can be enhanced by providing success or mastery experiences, by observing the success experiences of others who are like oneself, by providing realistic encouragements and, by altering the physiological state and/or one's interpretation of it (e.g. reduce stress or reinterpret the situation so that it is no longer stressful). These enhancements are all governed by one's belief about their ability to control or change the situation they are in or the events being dealt with. If some degree of control or change is not feasible then a strong sense of SE will not come into play.

o Enhancing Motivation and Self-Efficacy (SE) by Goal Setting

Forethought enables people to guide and motivate their behavior using internal standards and to develop incentives to sustain their efforts. Future goals are attained by the setting of sub-goals that are closer in time and evaluating one's accomplishments of these sub-goals. Goals can have a strong motivational effect by providing one with a sense of purpose and direction. By successfully attaining challenging sub-goals one's sense of SE is also enhanced. Such accomplishments also create self-satisfaction and an increased interest in what one is doing.Goals that are dictated by some authority are not likely to be as motivating as those in which one has had a role in their development or has developed themselves (save for possible life threatening situations). Goal setting with informative feedback on accomplishments has been shown to be more effective than the use of goals alone, feedback alone or neither goals nor feedback

There are certain characteristics of goals that determine whether or not they will be motivating:

Definiteness - goals the are explicit can better serve as guides for performance and evaluation than those that are general.

Challenge - there is an optimal level at which to set a goal so it enhances motivation; ones that are set too high can be disappointing while ones that are set too low may cause a loss of interest due to their ease of accomplishment.

Proximity - goals distant in the future are not likely to be motivating unless they are broken down into sub-goals that are achievable in the shorter term. The latter are more likely to sustain efforts over time.

In the development cycle the LCGT may want to use these principles as an aid in selecting the mechanisms, means and settings that will be used in providing the EEP as well as in the preparation of the curricular materials (as described in Chapter 10).

14.10 Stages and Processes Involved in the Ways People Change

Is it useful to think that in the course of changing people may move through different stages with some change processes being more appropriate for certain stages than for others? The work of Prochaska and his colleagues (Prochaska, et al., 1992) suggests that this is so. They find that whether self-initiated or professionally initiated, individuals in the course of modifying their addictive behaviors progress through the stages of: (1) precontemplation; (2) contemplation; (3) preparation; (4) action; and, (5) maintenance. Further, individuals may recycle through these stages several times before the behavior is terminated. They conceive of this recycling as a spiral in which the individual may be thought of as moving to a higher level closer to the point of termination. Let us take as an example the cessation of cigarette smoking (they have also included work with substance abuse - food, alcohol and drugs - in a variety of populations). In the **precontemplation** stage smokers have no intention of changing their behavior in the foreseeable future. Indeed, the individuals may be unaware or underaware of their problem(s). Precontemplators may wish to change but don't seriously consider doing so. Resistance to the recognition or modification of a problem is characteristic of precontemplation. In the **contemplation** stage individuals are aware that a problem exists and are serious about doing something about it but have not yet made a commitment to do so. Cigarette smokers may remain in this stage for years without doing anything further. Individuals in the contemplation phase tend to weigh the positive effects of eliminating the behavior against the amount of effort, energy and loss involved in overcoming the problem. The next stage, **preparation**, involves both intention and some small behavioral change - such as smoking five less cigarettes per day. Individuals in this stage have not yet reached a criterion of effective action (e.g. abstinence) but intend to take such action in the very near future (e.g next few days, weeks or months). In the **action** stage individuals successfully make the changes necessary to overcome their problem(s) (e.g own behavior, experiences, environment) and maintain this altered behavior from one day to six months. The cigarette smoker is now "off" of cigarettes and may have rid his/her environment of items which might stimulate or evoke smoking behaviors (e.g. ashtrays, cigarette lighters, odors of freshly lit cigarettes. etc.). The final stage, **maintenance**, is one in which people work at preventing relapse and securing the gains they made in the prior stage. This stage lasts from six months after the initial action to an indeterminate time in the future (e.g a lifetime) wherein individuals actively work to sustain the changes made and to avoid relapse. For example, former cigarette smokers might carry a mint in their pocket and pop one in their mouth whenever they get a craving to smoke. Also, they may actively avoid sitting around smokers and might even become involved in an anti-smoking campaign. Should relapse occur individuals may recycle back to any of the earlier stages. Most smokers (85%) recycle back to the preparation or contemplation stages while the remainder may go back to the precontemplation stage (at least for self-changers).

The authors find that the amount of improvement individuals make in a behavior modification program (e.g. smoking cessation) depends upon the stage they are in prior to participating in the program. Also, when the program is not appropriately focused on

Table 14.2 Stages & Processes Involved in the Elimination of Addictive Behaviors

Stage	Description	Time	Typical Statement(s)	Processes Facilitating Transition
1. Pre-contemplation	Person has no intention of changing in the future	Next six months	"As far as I am concerned I don't have any problems that need changing" &/or "I guess I have faults but there's nothing that I need to change"	
				Consciousness-raising Dramatic relief Environmental re-evaluation
2. Contemplation	Person recognizes that a problem exists & is thinking of doing something about it but hasn't yet made a commitment to do so	Can remain here for years while weighing pro's & con's	"I have a problem & I really think I should work on it" &/or "I've been thinking that I might want to change something about myself"	
				Self re-evaluation
3. Preparation	Person intends to take action, has made some minor reductions in the problem & intends to reach abstinence	Hopes to reach abstinence in very near future	"I have made some changes in the problem & hope to eliminate it completely, soon"*	
				Self liberation
4. Action	Person has overtly modified their behavior, experiences or environment so as to overcome the problem	Has maintained a behavioral criterion (e.g. abstinence) for one day to six months	"I am really working hard to change" &/or "Anyone can talk about changing; I am actually doing something about it"	
				Reinforcement management Helping relationships Counterconditioning
5. Maintenance	Person works to sustain the gains made during the prior stage & to avoid relapse	Six months to a lifetime	"I may need a boost right now to help me maintain the changes I've already made" &/or "I'm here to prevent myself from having a relapse"	Stimulus control

PROCESS DEFINITIONS

CONSCIOUSNESS RAISING-INCREASING INFORMATION REW SELF AND PROBLEM VIA OBSERVATIONS, CONFRONTATIONS, INTERPRETATIONS, BIBLIOTHERAPY
SELF-REEVALUATION-ASSESSING HOW ONE FEELS AND THINKS ABOUT ONESELF REW A PROBLEM VIA VALUE CLARIFICATION, IMAGERY, CORRECTIVE EMOTIONAL EXPERIENCE
SELF-LIBERATION-CHOOSING AND COMMITMENT TO ACT OR BELIEF IN ABILITY TO CHANGE VIA DECISION-MAKING TECHNIQUES, NEW YEARS RESOLUTIONS, LOGOTHERAPY TECHNIQUES, COMMITMENT ENHANCING TECHNIQUES
COUNTERCONDITIONING-SUBSTITUTING ALTERNATIVES FOR PROBLEM BEHAVIORS VIA RELAXATION, ASSERTION, POSITIIVE SELF-STATEMENTS
STIMULUS CONTROL-AVOIDING OR COUNTERING STIMULI THAT ELICIT PROBLEM BEHAVIORS VIA RESTRUCTURING ENVIRONMENT(E.G REMOVING ALCOHOL OR FATTENING FOODS), AVOIDING HIGH RISK CUES, FADING TECHNIQUES
REINFORCEMENT MANAGEMENT-REWARDING SELF OR BY OTHERS FOR MAKING CHANGES VIA CONTINGENCY CONTRACTS, OVERT AND COVERT REINFORCEMENT, SELF-REWARD
HELPING RELATIONSHIPS-BEING OPEN AND TRUSTING REW PROBLEMS WITH SOMEONE WHO CARES VIA THERAPEUTIC ALLIANCE, SOCIAL SUPPORT, SELF-HELP GROUPS
DRAMATIC RELIEF-EXPERIENCING AND EXPRESSING FEELINGS REW PROBLEMS AND SOLUTIONS VIA PSYCHODRAMA, GRIEVING LOSSES, ROLE PLAYING
ENVIRONMENTAL REEVALUATION-ASSESSING HOW PROBLEM AFFECTS PHYSICAL ENVIRONMENT VIA EMPATHY TRAINING, DOCUMENTARIES
SOCIAL LIBERATION-INCREASING ALTERNATIVES FOR NONPROBLEM BEHAVIORS AVAILABLE IN SOCIETY.E.G. ADVOCATING FOR RIGHTS OF REPRESSED, EMPOWERING, POLICY INTERVENTIONS

Adapted from: Prochaska et al,1992. *Current author's example.

modification program (e.g. smoking cessation) depends upon the stage they are in prior to participating in the program. Also, when the program is not appropriately focused on the stage individuals are in, improvement is much less. Further, if the program is focused on one stage but potential recruits are in a different stage, recruitment rates may be exceedingly low (e.g. recruiting for a program that is based on the action stage when potential recruits are in the pre-awareness stage). Finally, the authors find that there are change processes that are more appropriate to some stages than to others (e.g. consciousness raising is appropriate in moving from pre-contemplation to contemplation whereas reinforcement management [rewards, contracts, etc.] and support relationships are more appropriate for moving from action to maintenance). We have attempted to summarize these concepts and their relationships in Table 14.2.

The notion of stages and processes is also supported by the work of Rogers (1983) in dealing with how people make decisions concerning whether or not to adopt an innovation. Rogers provides evidence for five stages that he calls: (1) knowledge; (2) persuasion; (3) decision; (4) implementation; and, (5) confirmation. In the **knowledge** stage a person becomes aware of the innovation's existence and develops some understanding of how it works. In affecting this awareness the mass media and cosmopolite (those from outside the social system) communication channels play a major role while the individual characteristics of socio-economic background and personality variables play a role in shaping who are the "earliest" persons to engage in such behaviors. In the second stage, **persuasion**, the person develops an attitude toward the innovation which can be either favorable or unfavorable. The formation of their attitude is affected by certain attributes of the innovation itself such as its' advantage relative to what is already in use, its compatibility with current practices or norms, its complexity, whether it can be tried out or not and whether it can be observed or not. Local and interpersonal (face-to-face) communication channels play a greater role in shaping these attitudes while there may be cues-to-action (e.g. adoption of a contraceptive due to a pregnancy scare that lead directly to behavior change). In the third stage, **decision**, the person involves themself in activities that lead to a decision - either to adopt or not to adopt. Results of trials (done by self or others) as well as existence of incentives will play roles in shaping this decision. In the fourth stage, **implementation**, the person puts the innovation into use - perhaps making modifications to it. Factors influencing the extent of modification or reinvention are: complexity and difficulty; lack of adopter knowledge re: details; the innovation is only a general concept or is used to solve a wide range of problems; a local adopter may want to assert "pride of ownership" by making some modifications; and, a change agency may have played a role in the adoption/modification process. Finally, in the **confirmation** stage the person seeks information that is supportive of their decision in the third stage but they may reverse that decision if confronted with conflicting messages (viz. to discontinue if adoption made or to adopt if the innovation was initially rejected). An innovation may be discontinued because there is a better replacement or because the person is dissatisfied with the innovation's performance. These concepts and their relationships are summarized in Table 14.3. Rogers also identifies stages that an organization may go through in the innovation process (Rogers, 1983) and suggests stages that are involved in the evolution of a communication network (Rogers & Kincaid, 1981).

Table 14.3 Stages & Processes Involved in Innovation-Decisions

Stage	Description	Time	Typical Behavior(s)	Characteristics &/or Process,s Involved
1. Knowledge	Person* becomes aware of the innovation's existence & develops some understanding of how it works	Can vary from days to years	Awareness of innovation creates need or vice-verse. Person seeks how-to or principles knowledge.	Socio-economics Personality Mass media Cosmopolite channels
2. Persuasion	Person* develops an attitude toward the innovation-either favorable or unfavorable	Less than 1.	Person seeks innovation-evaluation information which reduces uncertainty re: expected consequences; person forms affect re: innovation	Relative advantage Compatability Complexity Trialability Observability Cues-to-action may lead from a positive attitude to overt behavior change Interpersonal channels Localite channels
3. Decision	Person* involves self in activities that lead to a choice-either to adopt or reject innovation	Can vary from days to years depending on innovation's characteristics (see first 5 for stage 2.)	Trial(s) by self &/or others to determine consequences	Results of small-scale trials Adoption incentives (e.g. free samples, subsidized efforts, etc.)
4. Implementation	Person* puts innovation to use	Until it becomes routinized in operations	Active information seeking re: where to obtain, how to use, & how to resolve problems encountered; user changes or modifications may occur-viz. reinvention	Factors affecting reinvention are: complexity & difficulty; lack of adopter knowledge re: details; innovation is only a general concept or is used to solve a wide range of user problems; local pride of ownership; change agency influences
5. Confirmation	Person* seeks reinforcement for decision in 3, but may reverse it if confronted with conflicting messages re: innovation	Indefinite time period	Seeks information that supports decision in 3. If support not found may change decision- to discontinue if adoption made or to adopt if innovation rejected in 3.	May discontinue because of a better replacement or due to dissatisfaction with innovation's performance

*or Decision making unit

Adapted from E. Rogers, 1983.

Table 14.4 Hypothetical Stages & Processes Involved in the Acquisition & Implementation of Problem Ameliorative Behaviors

Stage	Description	Time	Typical Statement(s)	Processes Facilitating Transition
1. Pre-awareness	No awareness or insufficient awareness	Indefinite	"I am not much aware of any such problem & hence have no knowledge or feelings about it"	Awareness raising techniques Incentives Endorsements
2. Knowledge	Recognition of the nature & extent of the problem develops	1 Unit	"I am now aware of the problem & am learning about it's nature & extent. However, I am not sure the problem can be resolved/ameliorated nor whether I am the one to do so"	Successful examples Incentives Personal benefits
3. Attitude	Belief that the problem can be ameliorated develops	2 Units	"I have learned more about the problem & now believe that it can be resolved/ameliorated. However, I do not as yet know how to do it nor whether I am the one to do so"	Successful examples Incentives Personal benefits
4. Skills	What can be done about the problem & how to do it develops	3 Units	"I am now familiar with the problem, believe that it can be resolved/ameliorated & know how to do so. However, I am not yet sure that I am the one to do so"	Role models Personal benefits Incentives
5. Aspiration	Desire to do something about the problem develops	1-3 Units	"I am now familiar with the problem, believe that it can be ameliorated/resolved, know how to do so & want to do so"	Role models Mentoring Incentives Reinforcement management Support groups/networks
6. Initiation of ameliorative behaviors	Ameliorative behaviors initiated	1 Unit	"I have just started these & hope to continue them in the future"	Mentoring Support groups/networks Incentives Reinforcement management
7. Sustainment of ameliorative behaviors	Ameliorative behaviors consolidated & sustained	Indefinite	"I have been doing these for some time now & expect to continue doing so"	Mentoring Support groups/networks Incentives

PROCESS DEFINITIONS

AWARENESS RAISING TECHNIQUES-PERSONALIZING THE PROBLEM AND IT'S CONSEQUENCES, MEDIA CAMPAIGNS, CHANGE PERCEPTION OF PROBLEM, PORTRAY PROBLEM AS OPPORTUNITY
INCENTIVES-WILL VARY BY THE STAGE BUT WILL MOTIVATE MOVEMENT TO THE NEXT STAGE E.G. MEALS, AWARDS, PERSONAL RECOGNITION, MONETARY SUPPORTS, ETC.
SUCCESSFUL EXAMPLES- CASE EXAMPLES OF AMELIORATING/RESOLVING THE PROBLEM
PERSONAL BENEFITS-HOW THE INDIVIDUAL WILL BENEFIT IF HE/SHE CHOOSES TO DEAL WITH THE PROBLEM
ENDORSEMENTS-PRESTIGIOUS PERSONS/ORGANIZATIONS WHO ENDORSE DEALING WITH THE PROBLEM
ROLE MODELS-INDIVIDUALS WHO CAN SERVE AS EXEMPLARS OF SUCCESS
MENTORING-PROVIDING GUIDANCE AND SUPPORT FROM THOSE MORE EXPERIENCED TO THOSE LESS EXPERIENCED
SUPPORT GROUPS/NETWORKS-PARTICIPATION IN GROUPS THAT HELP FOSTER AND SUSTAIN DESIRABLE BEHAVIORS
REINFORCEMENT MANAGEMENT-REWARDING SELF OR OTHERS FOR MAKING OR SUSTAINING CHANGES THROUGH CONTRACTS, OVERT AND/OR COVERT FORMS OF RECOGNITION, SELF-REWARD, ETC.

be worthy of consideration when thinking about the development of the **educational experience profile** (called the **EEP** in Chapter 10) as well as some of its associated modules/activities such as creating awareness, recruiting participants, etc. In Table 14.4 we have attempted to develop a set of hypothetical stages and processes between stages using the KASAB attributes as a way of illustrating how the development team might want to develop their own stage-process model. The nature of movement between stages would also be something they would decide (viz. can an individual jump stages or must one move through each stage in turn, etc.).

14.11 Analyzing Exposure Rates for the EEP

As noted in Chapter 10, a number of variables can be used to describe a learning or educational experience. Those for time focus on such concerns as frequency, recency, intensity and duration of the experience. Such concerns can be used to structure or apportion the amount of time devoted to certain skills and/or subject matters (S's). Let us assume for purposes of illustration that there are 6 S's to be covered in 6 experiential sessions (E's) of 90 minutes duration each session. We can form a matrix as illustrated below where the rows represent the S's, the columns represent the E's with each cell containing the amount of time to be devoted to S in that E.

Sessions (E's)

Skills/ Subj.'s	1	2	3	4	5	6	*Total time*
S1	30	15	10	5	5	5	*70*
S2	30	15	10	5	5	5	*70*
S3	30	30	0	0	0	0	*60*
S4	0	30	20	20	20	20	*110*
S5	[illegible]	0	30	30	30	30	*120*
S6	0	0	20	30	30	30	*110*
Total time	*90*	*90*	*90*	*90*	*90*	*90*	*540*

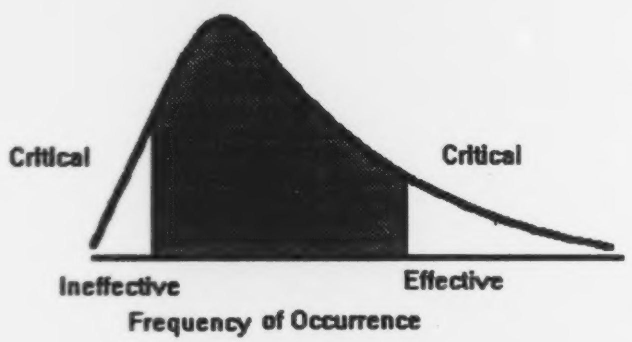
The entries in the rows will reflect the amount of time devoted to that S in each session. They are repeated in other sessions to allow for further coverage or, for practice or rehearsal as an aid to retention. Skills and knowledges that are prerequisites would be introduced in the earlier sessions while those that build on the prerequisites would be introduced later after the lower order skills or subject matter had been learned.

A simple matrix format like this lends itself readily to spread sheet analyses on a personal computer with much larger and more complicated layouts being possible. It can be used as a planning tool and as a tracking tool for both group and individual instruction.

In the development, implementation and maintenance cycles the LCGT may want to consider the use of such a tool.

14.12 A Theory of Performance Incidents

Figure 14.1 Distribution of Performance Incidents



In observing our fellow workers (those who work with us, for us or for whom we work) we can all recall some activities they carried out which were considered unusually effective or efficient. Similarly, we can recall behaviors that were unusually ineffective or inefficient. In contrast, the greater mass of work behaviors that we observe in our day-to-day work lives do not stand out in any particular way. Those behaviors which stand out in our views as being extremely different can be called incidents of critical performance, or, **"critical incidents"** for short (Flanagan, 1954).[Figure 14.1 illustrates these concepts.] They are critical not just because they are different but because they made a difference in the way the work was done as well.

Critical incidents are obtained by asking people directly involved in doing or supervising the work to give specific actions or behaviors that they have actually observed. The examples are of two types: (1) **effective incidents** - those that lead to significantly better than average accomplishment of a particular job, assignment, mission or responsibility; (2) **ineffective incidents** - those that lead to significant delay, mistakes, omissions, lack of accomplishments or obstacles to achievement of work. An individual critical incident is **not an evaluation** of a person. It is an observation of "what happened", what action took place, and what were its consequences.

In the usual procedure for gathering incidents, one person contributes only a few. Typically s/he is asked to write up eight of them - two effective and two ineffective incidents involving job or **technical competence** and two of each kind involving **working with people**. Because the incidents are collected from many people - enough to provide a good sampling of the job or job family under consideration - it is comparatively easy to assemble a pool of several hundred or more, depending upon the size of the job family. At this time, certain information is also requested about the people involved in each incident, to help in carrying out analytic studies of aggregate data for management purposes; but complete **individual anonymity** is assured.

After the incidents have been collected they can be analyzed and categorized in different ways*. Usually, the incidents are sorted into categories based upon their common content. Descriptors are developed for each category so that incidents can be easily and reliably categorized. Eight to twelve categories are usually identified. One side of each category will contain effective incidents while the other side will contain ineffective incidents. Examples of categories resulting from such analyses are: (1) performing tasks accurately; (2) taking responsibility and initiating action; (3) responding to need for extra effort; (4) cooperating with others; (5) getting along with others; (6) planning and organizing work; (7) motivating subordinates; (8) training and developing subordinates; and, (9) maintaining communications (Mayeske et al., 1966). They will of course, vary with the particular job family under consideration (Mayeske, 1966).

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* The reliability and validity of the "critical incident technique" methodology has been examined and found to be satisfactory save for some concerns about interobserver reliability. However, the latter is a problem only for judging individual as opposed to aggregate performance (Ronan & Latham, 1974; Anderson & Nilson, 1964). Individual personnel performance is best judged in terms of the accomplishment of workplans rather than in terms of behavioral extremes. The accomplishment of work plans may entail many more performance categories than those of the extremes (Hahn, et al., 1979). In addition, a personnel appraisal system should have certain properties that an aggregate monitoring system need not be concerned with (Davis & Verma,1993; Stufflebeam, et al., 1988).

Once categories have been developed and the pool of incidents have been reliably categorized, a variety of analyses and uses can be made of them. They can be counted to see which categories contain the greatest number, sorted by level of responsibility to see how they change as one moves from technical to supervisory responsibilities, tabulated to see if there is a relationship between the type of incident and the length of time elapsed, etc. They can also be analyzed to determine the overall strengths and weaknesses of an organization, to identify training needs and performance standards, to assess the relevance of training, to identify problems in supervision, to assess the effects of organizational changes over time, to identify structural impediments to performance and, to determine the degree of agreement on what constitutes effective and ineffective performance (Mayeske et al., 1966; Mayeske, 1966; Mayeske & Glickman, 1964).

As a management tool the Life Cycle Guidance Team (LCGT) may decide to use some form of performance incident methodology to assist in guiding the program.

Chapter 15.0 Life Cycle Program Evaluation

This chapter focuses on an evaluation of the Life Cycle Program Management (LCPM) process outlined in the preceding chapters. The evaluation questions and issues are organized by each cycle with some brief discussion given to the methods that could be employed. **Life Cycle Program Evaluation (LCPE)** is discussed and defined. Roles and standards for **program evaluators (PE's)** and the work they do are outlined. Most of the judgments made by the PE are centered on the extent to which the fidelity of focus on the problem was maintained and the plausibility of the program was sustained. [Ordinarily concerns with fidelity of focus would form part of those for plausibility. However, it is so subject to threat that it is elevated to a status similar to that of plausibility.] Other concerns are with the quality and integrity of the entire process.

The PE's role is portrayed as one of assessing the effects of management decisions on program performance as well as the bases for their decisions and the accuracy of the information used in making their decisions. Special efforts to more thoroughly and rigorously determine programmatic effects are undertaken only if it is determined that there is something **worth** examining and there is a special **need** and **resources** to do so. [These concerns are dealt with in the next chapter.]

15.1 What is Life Cycle Program Evaluation?

In the preceding chapters we have attempted to outline basic components of the LCPM process. But, we might ask, what would an evaluation of the different life cycles focus on? In this section we shall outline an approach to LCPE that focuses on a set of evaluation questions with issues specific to each cycle. The possible methods to be used to address these issues are organized around the cycles. This three way classification can be thought of as generating a three dimensional rectangle, as depicted in Figure 15.1. Questions and issues appropriate for each cycle are given in Table 15.1. Examination of these issues shows that most of the traditional focus of program evaluators (PE's) has been on the determination of clientele benefits. These concerns pertain to one or two of the issues in cycle five if one includes consequences along with benefits. Another focus for PE's has been on program improvement which deals with yet another issue in cycle five. At times, PE's have also focused on program implementation which deals with one of the issues in cycle four. The remainder of the issues are ones that are dealt with tangentially if at all, by PE's yet they comprise the bulk of the evaluation issues for the LCPM process. We shall deal with these issues and methods in greater detail once the nature of program evaluation and the ways in which it is carried out have been examined.

Figure 15.1 Classification of Evaluation Questions, Issues & Methods by Program Life Cycles

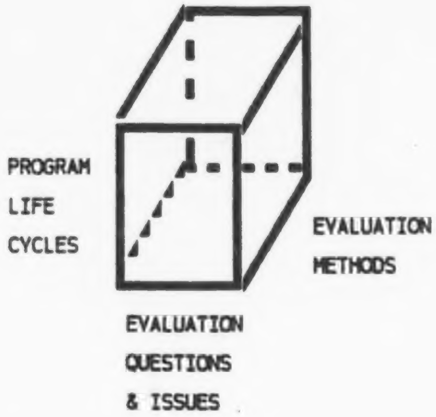
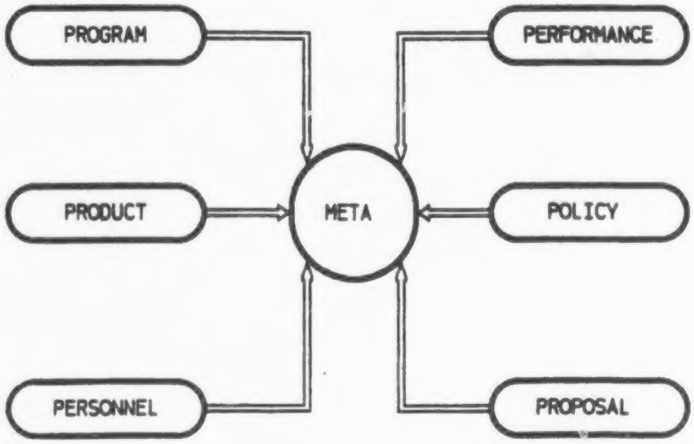

PROGRAM LIFE CYCLES
EVALUATION METHODS
EVALUATION QUESTIONS & ISSUES

Figure 15.2 Major Areas of Evaluation


PROGRAM
PERFORMANCE
PRODUCT
META
POLICY
PERSONNEL
PROPOSAL

ADAPTED FROM SCRIVEN(1993)

Table 15.1 Evaluation Questions & Issues Associated With Program Life Cycles

Program Life Cycles	General Questions	Specific Issues
1. Problem Finding	Are the problem & its' solution(s) "credible"?	How was the problem identified; by whom; why did they engage in problem finding; when; & where? Was the proposed solution justified? How "well" was the process carried out?
2. Program Design	Were fidelity of focus & plausibility sustained?	How "well" was the process carried out? How readily could an independent set of peers understand the product? How many modifications did they make to it? How many modifications & of what type had to be made to the design in the subsequent cycle?
3. Program Development	Were fidelity of focus & plausibility sustained?	How "well" was the process carried out? What was the nature & extent of potential clientele and expert(s) involvement? How readily could a synthesis of the modular results be made? Was the expected time to reach development attained? How many modifications & of what type had to be made in the subsequent cycle?
4. Program Implementation	Were fidelities of:focus;& of implementation; maintained? Was plausibility sustained?	What corrective actions were taken & with what effects? Has implementation been attained? Was the expected time to reach implementation attained? How many modifications & of what type had to be made in the subsequent cycle?
5. Program Maintenance & Improvement	Were fidelity of focus & plausibility sustained?	What corrective actions were taken & with what effects? How do clientele benefit from the program? How have exemplary practices been identified & infused into the program & with what effects? What are the consequences of the clientele benefits? Are there uanticipated "spin-offs" & if so, what are their consequences?
6. Redirection	Were "integrity" & "credibility" sustained?	How "well" was the process carried out? What was the nature and extent of program provider & stakeholder involvement? How many candidates were identified for redirection? How many candidates were redirected & with what effects?

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15.2 What Does Program Evaluation Entail?

In the general field of Evaluation, as outlined by Scriven (1993), program evaluation is merely one of seven topical areas in which evaluation is practiced. The others are: product, personnel, performance, policy and proposal evaluations as outlined in Figure 15.2. The seventh , called meta-evaluation , deals with an evaluation of the evaluations for a particular topic or topical area. [Scriven (1993) also identifies other topics besides the "Big Seven" but we have chosen to restrict our focus to these seven*.] Still other topics such as research or theory can be readily handled under the "Big Seven". We may recall that a program in our definition is a theory (see Chapter 1). Hence, program evaluation can be thought of as the evaluation of a theory. Similarly, the evaluation of research as a body of knowledge can be thought of as falling into the program or product areas. Further, program monitoring and program reviews (in which an entire program or programmatic area is reviewed by a team of "external" experts) can be thought of as a less rigorous and perhaps less comprehensive form of program evaluation. [Scriven (1993) calls monitoring a form of proto-evaluation.] Monitoring can be done for purposes of implementation or compliance (the latter sometimes called "auditing").

In the pages that follow we shall see that the PE's, in the course of an evaluation of the LCPM process, may carry out not only a program evaluation but product, personnel, performance and policy evaluations as well.

Program evaluation is also closely related to a still emerging discipline called "organization development" (Sikes et. al, 1989; Weisbord,1987) and PE's may increasingly find themselves using many methods from that emerging discipline, as we saw in Chapter 13. Indeed, the utilization of results of program evaluations perhaps can best be aided by organization development "experts" who help to establish and guide administrative mechanisms for change resulting from the evaluation. Figure 15.3 attempts to depict the relationship that may come to exist between these general disciplines and the sub-specialty of program evaluation.

While we are dealing with the topic it may be prudent to dwell on what program evaluation is not. It is best to regard it as neither science nor research even though it is often portrayed as both. It is a sub-discipline that uses a number of methods that scientists use in doing research. PE's use such tools as part of a systematic, disciplined effort to obtain information about a program or programmatic area. To label such efforts as science and/or research serves to put the emphasis on values and standards that may be unattainable or even serve as an impediment to what is needed (e.g the researcher's insistence on a randomized design to follow youth into adulthood to determine which youth development programs are most successful in producing community leaders in spite of the fact that it is virtually impossible to maintain such a design over an extended period of time, not to mention the cost & length of time involved). Rather the emphasis should be placed on obtaining objective, independent information of a sufficient quality that will enable sound judgments to be made about program performance.

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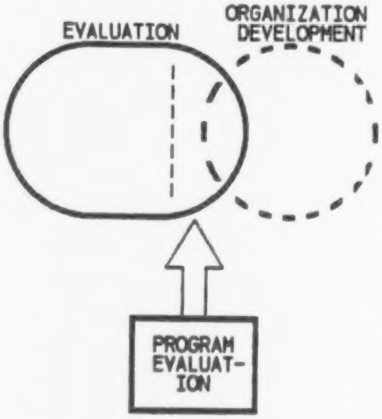
* Some of these are: intradisciplinary (evaluation of everything comprising a discipline); a range of efforts from literary criticism and real estate appraisal to quality control efforts in industry.

Figure 15.3 Relationship of Program Evaluation to Evaluation & Organization Development



15.3 How Is Program Evaluation Practiced?

There are at least three aspects to program evaluation - the practitioners, the work they do and, the settings in which they work*. Let us examine each of them in turn.

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* See House (1993) for a discussion of the social consequences of evaluation as a profession.

o Principles for Evaluators

The vast bulk of program evaluation is not done by professional evaluators but rather is done by staff of the program's organization, staff of allied organizations or by clientele or stakeholders themselves. The evaluation may take the form of a monitoring visit by a supervisor or a team, may constitute a full program review by an outside team, or may entail the evaluation of the performance of individuals or teams that carry out the programs.

Professional PE's are usually expected to bring a more formal, disciplined and independent view of the program than would program or program related staff. Since they are not indoctrinated about the program they are expected to ask many uninformed questions in order to develop their understanding of the program. Such questions can at times be very revealing. The American Evaluation Association (AEA) has drafted a set of **guiding principles** for evaluators, given succinctly in Table 15.2.

* **Systematic Inquiry** - intended to insure that appropriate technical standards are maintained, that misleading information or conclusions be avoided and that results are communicated with sufficient accuracy and detail to allow a critique of the evaluation and its' shortcomings.

* **Competence** - intended to ensure that evaluators have the appropriate skills and experience and that they not undertake evaluations beyond their scope of expertise.

* **Integrity/Honesty** - intended to ensure that evaluators are clear and accurate with clients concerning an evaluation's cost, strengths, weaknesses, and uses, changes made while in process, stakeholder interests (including their own) in the evaluation, avoidance of misrepresentation of procedures and results, etc..

* **Respect for People** - intended to ensure that security, dignity and sense of self-worth of all those involved in or affected by the evaluation, be protected.

* **Responsibilities for General and Public Welfare** - intended to ensure that evaluators are sensitive to and take into account the range of interests and values that may be related to the welfare of the public.

[These standards are subject to revision and approval by the AEA members before becoming final.]

Table 15.2 Draft Guiding Principles for Evaluators from the American Evaluation Assn.

- Systematic Inquiry
- Competence
- Integrity/Honesty
- Respect for People
- Responsibilities for General & Public Welfare

ADAPTED FROM AEA DRAFT GUIDLINES OF 8/18/93

Table 15.3 Standards for Evaluations of Educational Programs, Projects & Materials

- Utility
- Propriety
- Feasibility
- Accuracy

ADAPTED FROM THE JOINT COMMITTEE ON STANDARDS FOR EDUCATIONAL EVALUATION(STUFFLEBEAM,ET AL.,1981)

o The Work Program Evaluators Do

PE's can be found working in a variety of settings and are often called by many different titles. Program analysts, management analysts, evaluation specialists, research (name of discipline) are just a few of the examples of the titles they may carry. They may have disciplinary training at the doctoral level or beyond,or may have less than a college education. Few however, will have received formal academic training as evaluators. More likely they will have built upon their training in some disciplinary area such as Sociology, Psychology, Economics, Education, Educational Research, Health Sciences, Public Administration, etc. and the situations they work in as well as the topics they work on may not be far removed from that discipline. In order to provide some guidance to those working in the field of educational evaluation, a set of **standards** for the evaluation of educational programs, projects and materials were developed by a committee of educational evaluators. The four categories of standards they developed are given in Table 15.3.

***Utility** - intended to ensure that the practical information needs of different audiences for the evaluation are served.

* **Feasibility** - intended to ensure that the evaluation will be practical, frugal and sensitive to the needs of different interest groups.

* **Propriety** - intended to ensure that the evaluation will be conducted in a legal and ethical manner with consideration given to the welfare of those involved or affected by it.

* **Accuracy** - intended to ensure that the evaluation will provide information that is technically adequate to judge the worth or merit of the object of the evaluation.

A revision of these standards will become available in 1994. The new version defines a standard as "a principle mutually agreed to by people engaged in a professional practice and which, if met, will enhance the quality and fairness of the professional practice". The revised standards, of which there are 30, are still subsumed under the four general categories in Table 15.3. Each standard contains guidelines for its application, common errors and illustrative cases (Evaluation Practice **News**, October, 1993).

These same **categories** also apply to the evaluation of personnel systems however, the standards and supporting examples are different (Stufflebeam, et al., 1988).

At times PE's may be found doing what might be termed **"special studies"**. They are not necessarily evaluative in nature but are more often devised to provide an organization with some special kinds of information that is needed for some particular purpose and that is not otherwise available.Some of these studies may be designed to illustrate a particular strength that the organization has in dealing with a particular problem, type of clientele or delivery mechanism (e.g. water pollution, parent involvement or work with volunteers).

At times PE's may also function as facilitators of a planning and development process. The focus of these efforts may be an evaluation design of a program or the design and development of a program such as that outlined in preceding chapters. Such efforts are always collaborative and cooperative for they could not be successful otherwise. Although third party status with no commitment on the part of the facilitator as to what has been or might be done is an advantage, the role played by the PE is more that of a **"coach"** than that of an independent observer. Consequently, we are less inclined to regard this as evaluation and more inclined to regard it as a developmental effort to which the PE's, by virtue of their training and experience can make a positive contribution. [Scriven (1991) calls this "pre-formative" evaluation. But, for the coaching type of relationship we prefer to avoid the use of the term evaluation even though the service provided by the PE, which can best be thought of as program design and development, may be invaluable.]

oo A Practitioner's Creed and the "Great Debate"

A great debate has been going on for some years now over the appropriateness of different approaches and methods to use in program evaluation. The debate covers a broad range of issues from the nature of science and knowledge to the ultimate nature of reality and the philosophical correctness of different approaches/methods (Sechrest, et al., 1993; Shadish,et al.,1991)."Schools of thought" have developed around this debate with one set of polar opposites (presumably) called "quantitative" and "qualitative". To the extent that this great debate introduces fresh ideas and new approaches into the field, it can be a source of enrichment. To the extent that it forces choices however, it can have a stultifying effect on the field. Although waxing or waning in evaluation circles depending upon which authors on reads (Sechrest, et al., 1993a; 1993b; Reichardt & Rallis, 1994) and waning in psychological circles (APA Monitor, November, 1993) the future is likely to see this debate evaporate. As more means become available to do both in the course of one study these approaches will likely not only strengthen and reinforce one another but will become so intertwined in one's thought and practice that the distinction is no longer a meaningful one. [Renata Tesch, the well known qualitative analyst tells us that computer programs are now available to do cross-over analyses from qualitative to quantitative data and vice-verse as well as to analyze "co-occurrences" across a time dimension with qualitative data (1992).]

The practitioner however, must keep an open and receptive mind to all new approaches practicing a kind of eclecticism. It is through such an orientation that a discipline as well as its' practitioners can flourish and grow. [As one practitioner puts it, "we cannot afford the arrogance of philosophical correctness" (Affholter, 1993).]

o The Situations In Which Program Evaluators Work

It is a truism that "rarely, if ever, does one bite the hand that feeds them". It is also a truism that "when bitten, hands that feed can strike back with great force". These truisms apply to many aspects of life including program evaluation. It is a rare manager who willingly allows critical questions to be raised about his/her programs let alone permits answers to be obtained. Usually such questions are thrust upon them by external forces and if the PE is not also an external force, critical results are not likely to be forthcoming. PE's cannot afford to be dependent upon the favorableness of their results for their livelihood - yet they often are. This is so because organizations often employ PE's not only for purposes of accountability and program improvement but as a defensive mechanism as well. Evaluations are seen as being "safer" or easier to mute if done by someone in their employ. Then too, if subject to a third party, external evaluation, one's own PE can defend the organization against the findings by providing sophisticated critiques of the methods and techniques employed as well as the assumptions made about the program in order to evaluate it.

The rare manager who allows critical questions to be raised about programs as well as candid answers to be sought usually has some mechanisms by which they can guard against "joining those on the rolls of the unemployed". Scriven (1993) identifies one of these mechanisms as being an "early warning system". By this is meant that the manager insists that s/he be forewarned of any critical or negative results early on so that s/he can develop an appropriate and constructive response before the results gain notoriety. PE's can also employ such a mechanism and can also provide some balance to the report of their results, assuming of course that there are some good things to say about the program. **As a general principle however, a PE's livelihood should never depend upon the favorableness of their results.**

o Towards a Theory of Evaluation

In their recent book "Foundations of Program Evaluation" the authors (William Shadish, Thomas Cook and Laura Leviton) set forth five categories that they feel should be considered in a theory of "social" program evaluation. These categories are derived in part, from their review and critique of seven major evaluation theorists who have had considerable prominence in the field over the last thirty years (Scriven, Campbell, Weiss, Wholey, Stake, Cronbach, Rossi). Although their focus is on "social" programs the questions they pose to the reader can be recast so that they might have a broader applicability. Some of the programs provided by Extension might not be regarded as social in nature even though they can be regarded as having a social

Table 15.4 Five Components of a Theory of Evaluation and their Key Questions

I. Programming
- (a) What problem(s) does this program address?
- (b) Can the program be improved?
- (c) If so, is it worth improving?
- (d) If not, what might be done with it?

II. Use
- (a) How might I (the PE) make sure my results get used in a timely manner to help the program?
  - (i) Do I want to do so? If so, why?
  - (ii) If not, can the results of the evaluation I do be used in other ways?

III. Valuing
- (a) Is this a "good" program?
  - (i) What do I mean by "good"?
  - (ii) What is the justification for my conclusion?

IV. Knowledge Construction
- (a) In what sense do I "know" what I purport to have learned about the program?
  - (i) How confident am I about my response in (a)?
  - (ii) What gives me that confidence?

V. Evaluation Practice
- (a) How can I narrow my options so as to do a feasible evaluation given the constraints under which I must operate (skills, time, resources) and the large number of alternatives possible?
- (b) How do I define my role? Am I an educator, methodological expert or judge of program worth?
- (c) Which questions of the many possible should I ask?
  - (i) How might I go about answering them - which methods should I use?

Adapted from Shadish, Cook & Leviton (1991)

impact - if the runoff from a feedlot gets in your drinking water the "social" impact becomes painfully apparent. They introduce their components to the reader via a series of questions that they feel program evaluators should be better able to address once they have read their book. These components and their associated questions are presented in Table 15.4. We shall see in this chapter and those that follow that in the course of carrying out an LCPE or an In-Depth evaluation study, most of these questions get answered by the PE in the sequence of steps set forth and procedures involved.

15.4 How Should Program Evaluation Be Defined for Life Cycle Program Management?

In the LCPM perspective, a program can be evaluated in any one of its' cycles with the issues addressed being somewhat different for the different cycles. However, in focusing on the issues for a given cycle, the evaluation cannot overlook what was done in the preceding cycles and must, without fail, examine the nature of the problem the program purports to address. Provisionally then, we shall define **Life Cycle Program Evaluation (LCPE)** as **"an assessment of the accomplishments, impacts and value of a program in redressing or ameliorating a problem"** . Clearly, some of the components of this definition will be (and should be) cycle dependent. For example, accomplishments refer to the early stages of the program (design, development and implementation) while impacts refer to the effects of the program on the participants and the consequences of such effects (including unanticipated ones). Values come into play in the evaluation of each cycle and in program redirection. In the evaluation of each cycle they involve judgments about the "worth" of the effort. In addition, in the redirection cycle they have two other aspects - absolute and relative value. Absolute value refers to the worth of the program to the organization and to society while relative refers to the worth of the program compared to others that are being offered by itself or by other organizations. Such concerns coupled with program performance information (including costs and perhaps cost-effectiveness as well) lead to decisions about program phase-out, changes in sponsorship and other forms of redirection, as outlined in Chapter 13.

Life Cycle Program Evaluations (LCPE) may be done for a variety of reasons. Often they are done to inform an administrative, funding or elective body about the performance of the program wherein such results may be incorporated into their deliberations. Or, they may be done on a more routine basis as part of an organization's ongoing program evaluation efforts, perhaps guided by legislative (sunset provisions), funding or planning cycle requirements,

15.5 Evaluation Issues & Methods for Problem Finding

There are three main "methods"(if it is indeed appropriate to call them such) that are of particular relevance for this cycle: (1) social philosophy and ethics; (2) logic; and, (3) the techniques of the inquisitive but skeptical reporter*. Hopefully their relevance will become apparent in the discussion that follows.

One cannot consider the problem seeking and finding phase without at first recognizing the **general societal background** in which they take place. There are at least three general concepts that can be used as a shorthand way of keeping this general background in mind. They are:

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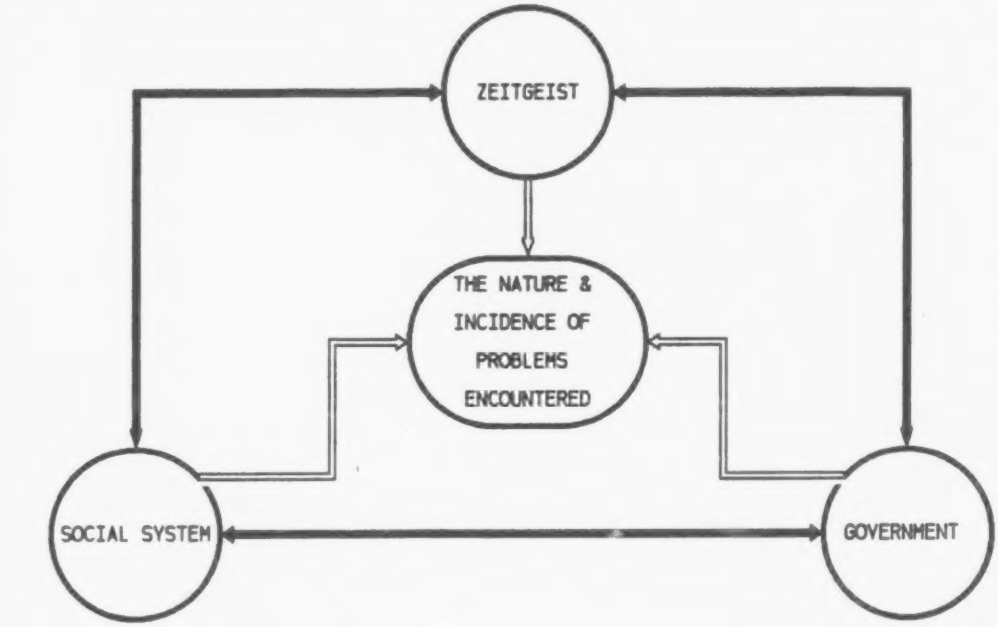
* The latter two taken together may be akin to what Scriven calls "probative logic" (Scriven, 1991).

Figure 15.4 The Nature & Incidence of Problems Encountered by Societal Background Conditions


ZEITGEIST
THE NATURE & INCIDENCE OF PROBLEMS ENCOUNTERED
SOCIAL SYSTEM
GOVERNMENT

o The Zeitgeist - Webster's Dictionary (1963) tells us that this term refers to the general intellectual, moral and cultural state of the era. We will include in this term the prevailing belief systems concerning: the universe and its origins; natural forces and their causes; diseases and their origins; the role of rational and irrational forces in influencing destiny; the nature of the human makeup including ethnic and gender differences, etc.. Clearly, the Zeitgeist can play an important role in determining which problems are recognized (or not), articulated (or not) and redressed (or not).

o Social System Functioning - the functioning of the social system (broadly defined to include economic, social and political forces) can have a profound influence on the nature and incidence of problems as well as their recognition, articulation and redress (or failure to do so).

o The Role of Government - governments and governmental policies, whether through active involvement [illegible] benign neglect, can play an important role in problem finding, similar to that of the Zeitgeist.

These three concepts are highly interactive in nature with one another as well as with their effects on the problem seeking and finding phase, as depicted in Figure 15.4. Let us consider a hypothetical example. Suppose that the Zeitgeist embraces a type of "social darwinism" in which individuals (or organizations) who prosper financially are seen as being "more fit" than those who are less prosperous and that "progress" is made through the efforts of those who are "more fit". Further, suppose that policies and programs of the government actually serve to enhance the status and efforts of the "more fit" and to discourage those of the "less fit" (Parenti, 1988; Donahue,1994). Finally, suppose that the economy takes a downturn with the result that the "less fit" are disenfranchised in a variety of ways (e.g. go out of business, lose employment, lose all possessions, etc.) with a resultant increase in divorce, alcoholism, family abuse, suicides, etc. Problem finders may encounter the latter increased incidences but merely regard them as the inevitable problems of the "less fit" in an evolutionary process. Or, they may encounter them with the recommendations that programs be put in place to ease the pain of economic transition for the "less fit" in what is also an evolutionary process. Alternatively, they could recommend that government policies be altered to no longer favor the "more fit" or even to actually constrain them in ways that make them more "socially accountable" (e.g. foster certain kinds of support mechanisms - such as cooperatives and worker owned businesses (Wisman, 1991; Weisbord, 1987) - for the "less fit"). They too might recommend programs to "ease the pain" but they would also be trying to get at some of the root causes of the pain.

The great cultural anthropologist Ruth Benedict (1934) once wrote that "no one sees the world with pristine eyes". This is as true for problem seekers and finders as it is for anyone else. The **"perceptual proclivities"** that they bring to this phase will be greatly influenced by the aforementioned societal background factors as well as by their own personal background, including such obvious factors as: their socioeconomic and ethnic background, age, gender, training and experience, to the less obvious ones of: at whose behest they are undertaking the effort, what relationship they will have to the problem (viz. who will devise a solution and who stands to benefit from carrying it out - if anyone), what relationship they have to the organizations or groups involved, etc. In an effort to ferret out such "perceptual proclivities" as part of assessing the adequacy of this phase we proposed in Table 15.1 the 5W/H framework of the investigative reporter plus some judgments of a logical and technical nature concerning how "well" the process was carried out. The ways in which the problem was defined, solutions proposed and reasons for doing so, are also dealt with. Let us systematically examine each in turn:

o Who Initiated the Problem Seeking Activity?

The "who" is important because organizations or groups tend to search for problems for which they have a vested interest or capability. This vested interest can affect every aspect of the cycle - from information gathering to analysis to interpretation. The PE needs to trace out these relationships and determine whether or not this vested interest "swayed" the results in a certain direction.

o Why Was the Problem Seeking Activity Initiated?

Was there a definite motive for the activity or was it part of a larger, generalized and periodic problem identification effort? Having a definite motive is not an indictment of anything or anybody. For example, an organization may say that "we have a genuine concern about the well-being of children in this country" and then set out to conduct (or commission someone else to conduct) a problem finding effort which documents the state of children in a completely objective and defensible manner. However, the PE needs to make a determination as to what the motives were and how they might have affected the results - if at all.

o What Did the Problem Seeking Activity Entail?

This question deals with the nature and scope of the effort. The PE will want to make judgments about the adequacy and credibility of the effort especially with reference to the problem(s) identified and the nature and level of effort put forth for their solution(s). Two key sub-questions are: from whom was the information obtained; and, by what means? Organizations may use advisory councils (Block, et.al, 1992) or other means which do not entail a representative cross-section of persons who should be making contributions to the process. Even when a representative cross-section is attained the means of contribution (e.g written responses, personal appearance at a particular locale at a particular time) may exclude participation by many, thereby "swaying" the results. Or, alternatively, questions may have been formatted or posed in such a manner as to lead the responses/respondents in a particular direction.

o When Was the Problem Seeking Activity Conducted?

The "when" refers to how current the effort was and whether or not "datedness" should be an issue in judging whether or not the problem identified is still a problem. Or, alternatively, the problem may have since been redefined or is now viewed in a different way.

o Where Was the Problem Seeking Activity Conducted?

Were the efforts highly localized in nature or were they very general? The PE will want to make judgments about whether or not such concerns had an effect on the results.

o How "Well" Was the Problem Seeking Activity Conducted?

The PE will inevitably form some opinions about the "goodness" of the problem seeking effort. Is it a "good" job (meaning well thought out and as thorough as desirable) or is it a "perfunctory" job that was really not worth the effort.Then too, the "sophistication" of those carrying out the effort needs to be taken into account when making such judgments. Have the seekers had a great deal of prior experience and/or training or is it something they did on a "shoestring" with little or no prior experience?

o What Factors Influenced The Definition of The Problem?

If those who gathered the information are different from those who analyze and/or interpret it, then the same 5W/H framework can be applied to the definition of the problem as a means of ferreting out possible influences. However, there are some broader concerns that should be dealt with first. These relate to judgments the PE may be able to make as to whether or not the "societal background" factors or "perceptual proclivities" may have affected the recognition of the problem or the manner in which it was defined. Rogers (1983) notes that there is often a tendency to regard individuals as responsible for what are really system shortcomings (or malfunctions) and to regard the individuals as needing "fixing" with little or no regard for changing the system. The Zeitgeist and government policies (including benign neglect) may also support and reinforce this kind of viewpoint, per our earlier hypothetical example.

o What Factors Influenced The Proposed Solution(s)?

There are two aspects to proposed solutions: what is being proposed; and, why they are being proposed. Let us focus on the motivations first:

oo **Motivations for Proposed Solutions**

* **Best Qualified** - the first and most obvious reason for an organization proposing a solution is that they are the best qualified to do so. This may or may not be so and the PE needs to make some determination of the veracity of their claims, if indeed, any are made.

* **Gain Competitive Advantage** - a second reason which may or may not be closely related to the first, is for the organization to gain a competitive advantage over some other organization or program, especially in an era of tight resources. Why the proposing organization did so is something the PE needs to determine.

* **Enhance Status With A Funding Source** - an organization may offer a program primarily for purposes of appealing to a funding source that would otherwise be unavailable as a source of support. [Some organizations may even implement a program on a low priority topic to gain such support*.]

* **Contemporaneousness** - an organization may offer a program because it needs to show that it is associated with issues or concerns that are contemporary in nature, sometimes to dispel an out-of date, "old fogey" image.

* **Need for Recognition** - an individual or organization may offer a program because they need enhanced visibility. It is not uncommon for elected officials to ally themselves with a problem area and offer programs in that area as a means of enhancing their status in the community and/or with their constituents (this is not to deny that they may have genuine concerns for the topic or problem). So too may organizations need to increase their visibility to a variety of stakeholders or to the public in general.

* **No One Else To Do It** - organizations may at times be "given" programs to carry out because there is no one else to turn to. In the case of elected officials there may not be anyone else under their jurisdiction and this is especially so for organizations located in remote or sparsely populated areas.

Undoubtedly the PE will be able to think of other questions as well and is encouraged to do so.

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*The opposite can also occur when a funding committee of elected officials forces a program on an agency so as to increase the appeal of their budget to the committee or to some of its' members.

oo What Was Proposed?

The "what was proposed" becomes more problematic than the "why" for it is here that different approaches to the same problem have to be weighed and chosen among or packaged in amounts that are proportional to the different needs being addressed. Here the PE needs to focus on whether or not alternative approaches were even considered, how comprehensive they were, whether or not the level of effort to ameliorate the problem was at all realistic, whether or not there was collaboration or duplication of effort with
other organizations, whether or to what extent the "societal background" factors or "perceptual proclivities" of the problem seekers/finders played a role in the proposed solution and if so, how?, whether or to what extent disciplinary biases came into play (e.g. health versus education versus regulation; or, "I'll define my specialty as meeting the problem and hence be able to do what I like doing"); and, whether or to what extent the proposed solutions are based on the assumption that other, lower order needs will continue to be met [the maintenance (or met) needs becoming unmet of Scriven & Roth, 1978.]

Again the PE may think of yet other questions and is encouraged to do so. We will have more to say about some of these matters in sections that follow.

15.6 Evaluation Issues and Methods for Program Design

There are two main methods used to assess the issues for this cycle: (1) logic; and, (2) qualitative analysis of how the process was carried out and with what result(s). The qualitative analysis referred to here is not restricted to those familiar to the researcher (Patton,1990) but is more likely to entail a series of judgments concerning how well the process was carried out and whether or to what extent the design team may have "drifted" away from a direct focus on the problem, either intentionally or inadvertently (hence the emphasis on the small **q**). The twin concerns of **fidelity of focus on the problem** and **plausibility of the design** are the overarching ones to which an assessment of the adequacy of this cycle is oriented. Let us examine the "goodness" of this process through a series of questions and then use these answers to guide our judgments about fidelity of focus and plausibility.

o How Well Was the Program Design Process Carried Out?

This question can be broken down into a series of questions concerned with how the design team was formed, how they interacted with one another and with the facilitator, how stakeholder involvement was carried out and analyzed, how thorough the modeling was and how well it held up to the scrutiny of peers (if any) and the development team, what the nature of the commitment to next steps was, and how this was facilitated by the executive briefing (if there was one)

oo What Was the Nature and Composition of the Design Team?

The design team should have had experienced members, a preponderance of whom should have had directly relevant experience with the clientele-to-be of the program . The PE needs to determine if this was a "good" mix in terms of the design they developed. Whatever the mix was, the PE needs to determine whether or not the team members brought to their meetings pre-formed notions of how they would be working with clientele - a delivery system bias, if you will. Further, did such a bias - if one was found - lead to a weaker or less relevant design than might otherwise have been attained? Such concerns lead naturally to the next question concerning the nature of the team's interactions.

oo What Was the Nature of the Team's Interactions?

Some of the information needed to answer this question may not be readily available to the PE except by talking with some of the original participants, if they are still around. Attendance at all of the meetings was considered highly desirable and some attendance roster would indicate who were absentees and for which sessions. Such absences preclude their contributing to the process and if their's is a specialized viewpoint, then some aspects of the design may be deficient. More important however, is the nature of the team's interactions with one another. If one or two members were unduly vocal then their influence on the process may have been disproportionate to the quality of their contributions. The PE needs to determine whether the design was truly a team product or bore an excess of influence from a few members and how that influence affected the design. These questions also involve the skill of the facilitator(s) in guiding the team through the steps. If the facilitator(s) did a proper job, the question of undue influence would be tangential.

oo How Was Stakeholder Involvement Obtained and Analyzed?

The PE needs to ask: "was the nature of stakeholder involvement appropriate for the process and topic under consideration?". If individual interviews were conducted, were their results very revealing or might an alternative means such as focus groups,have been more useful? Whatever form the interviews took, was there a high rate of participation? Were the intended number of stakeholders interviewed? Did most of those who were to attend the focus groups actually do so? Were the analyses done in a systematic and thoughtful manner or were they rather perfunctory? The PE will likely think of other questions depending on the source documents that are available.

oo How Complete and Representative Were the Modeling Results?

For these concerns the PE will want to focus on whether all of the steps in the modeling were completed and if not, why not? Were relevant documents, if any, incorporated into the process? Do the results reflect any depth of thought or are they rather simplistic in nature? Could non-participant peers readily relate to the results or were elaborate explanations/changes needed and if so, why? Did the development team in the next cycle have to make many modifications to the design and if so, why?

oo What Was the Nature of the Commitment to Next Steps?

Was any commitment made by the executive or administrative council to make next steps and if so, what did they involve (e.g. resources, policy changes, etc.)? Did the executive briefing facilitate this commitment (if there was a briefing)?

o Was Fidelity of Focus on the Problem Maintained?

The main concern here is whether the design team stayed focused on the problem in carrying out their design efforts or "drifted off course", either intentionally or unintentionally. If, in the judgment of the PE "drift" occurred, then the reasons for this need to be ascertained (if possible). If intentional, then why? If unintentional, then what ere the factors involved? What should be done with the design - can it be refocused or ould it be scrapped?

o Was a Plausible Design Produced?

If and only if fidelity was sustained, is it meaningful to ask about the plausibility of the design. If plausibility questions are appropriate, then those given in Chapter 5 should be used to arrive at a judgment concerning the degree of plausibility of the design.

15.7 Evaluation Issues and Methods for Program Development

As with the previous cycle, the two main methods for assessing the adequacy of this cycle are : (1) logic; and, (2) qualitative analysis. A series of questions are answered concerning how "well" the program development process was carried out with the answers used to guide judgments concerning whether or not fidelity of focus on the problem had been preserved and, if so, whether a plausible program had been developed.

o How "Well" Was the Process Carried Out?

The most important qualitative question deals with the nature and extent of staff commitment to the developmental cycle. Other qualitative questions focus on the thoroughness of the work done for the different modules. A premium is placed on obtaining potential clientele input and expert opinion along the way, for through such means it is believed that fidelity of focus on the problem will be maintained.

oo What Was the Nature and Extent of Commitment of Staff?

It is not uncommon to find that staff have myriad responsibilities - even perhaps too much at times, with few opportunities for "sloughing off" some of them. Another assignment then, even if considered desirable would be an added burden to an already overcrowded schedule. Time management problems and feelings of stress could increase greatly. Add to this the fact that the team members may bring different disciplinary backgrounds to the work of the team and that they may be rewarded for successful work in their respective disciplinary areas, not in inter-disciplinary work. Also, profound personality differences may exist among the team members. Given these conditions the potential for conflict, delay and failure would be very great. In addition, the appropriateness of the staff assignments in terms of their competencies to contribute to the developmental cycle may be examined. The PE will want to determine to what extent these conditions were present and how they might have affected the program development process.

oo How Adequate Was the Developmental Work for the Different Modules?

The PE will examine the products resulting from each of the modules as well as the procedures used to develop them to arrive at some judgment about their quality. Quality criteria will involve the use of clientele input and expert opinion including program providers, plus the near absence of disciplinary "biases" (viz. some disciplines may predominate but for the proper reasons). The extent to which and ways in which the products could be integrated in the final task would also be a consideration here.

o Was Fidelity of Focus on the Problem Maintained?

The PE will use the results of the prior questions plus others s/he may have thought of to determine whether or not fidelity of focus was maintained. If not then there is no point in proceeding further and that is so for all negative responses to the fidelity and plausibility questions that follow. If yes, then the next question becomes:

o Was a Plausible Program Developed?

To answer this question the PE will want to apply the criteria given in Chapter 11 as well as to revisit those on plausibility given in Chapter 5 and used for the prior cycle.

15.8 Evaluation Issues & Methods for Program Implementation

In this cycle the LCGT decided to implement the program and the program has presumably reached a stage of implementation where it becomes meaningful to ask about problems encountered in implementation and how their resolution may have affected the program. It also becomes meaningful to ask about the extent of implementation and whether the program that has been implemented is the one intended. Answers to these questions will, as in previous cycles, help guide judgments that the PE will make concerning plausibility of the implemented program and fidelity. However, fidelity takes on two different meanings in this cycle - one deals with fidelity of focus on the problem - while the other deals with fidelity of implementation. Since the LCGT plays a key role in overseeing implementation, some attention will be given to their functioning . Since much of their decisionmaking depends on the various forms of feedback (unit accomplishment reports, hot-line queries, supervisory site-visit reports, mentor site reports), their veracity would be examined as well. Hence in addition to logic and qualitative analysis many of the other tools commonly used in program evaluation will also come into play. These include sampling, structured survey and interview techniques and their analysis, etc. [We will not deal in any detail with these methods since there are a variety of books that already do this. See for example, Henry (1990) for sampling, Patton (1990) for qualitative and Rossi & Freeman (1993) for quantitative approaches, Krueger (1988) for focus groups, etc.] Veracity checks of the different sources of information will also enable the PE to make judgments about the nature of the program that is in operation.

o What Problems Were Encountered/Resolved and With What Effects?

The PE will want to examine the proceedings from the LCGT's meetings to ascertain the barriers that were encountered, the diagnostic decisions that were made and the corrective actions that were taken. From these plus such other information that is available and relevant the PE will try to tease out what the possible implications of these corrective actions were for both fidelity of focus on the problem and fidelity of implementation. The PE may want to talk with field staff and clientele in the course of these deliberations. If both fidelities are maintained then and only then does it become meaningful to question the veracity of the various forms of feedback. If fidelities aren't maintained then questions need to be raised about the reason for existence of the program as is and whether it should be redirected somehow.

o How Dependable Are the Various Forms of Feedback?

Depending upon how much the LCGT used the various forms of feedback in their deliberations, the PE will want to derive a means of checking on their veracity. The means will likely be composed of a mix of methods including interviews with a sample of the sources providing the feedback to judge the quality of the information that they have provided. If the quality of the information is such that it is misleading , then the PE will want to make some remedial recommendations and take these shortcomings into account in judging plausibility. If the quality is acceptable then the PE will want to arrive at some final judgments concerning the two kinds of fidelities and plausibility. It should follow that if the two kinds of fidelities have been maintained then so too has plausibility been sustained.

15.9 Evaluation Issues and Methods for Program Maintenance and Improvement

Given that the program was implemented as intended, the LCGT will have shifted its' focus to monitoring for intended effects. For these concerns the LCGT relies on the forms of feedback concerning clientele benefits, successful practices, success stories and stakeholder views, plus such other information of a less formal nature that they bring to the team setting. Before focusing on the veracity of these sources however, the PE will examine the kinds of barriers that were encountered, diagnostic decisions made and corrective actions taken, and ascertain their implications for the maintenance/improvement of the program. For both kinds of concerns logic and qualitative analysis will come into play. However, some of the more traditional program evaluation tools may be used when examining the veracity of the information. As in the preceding cycle, these tools might include sampling, structured survey and interview techniques and their analysis, etc.

o What Problems Were Encountered/Resolved and With What Effects?

The PE will deal with this question in a manner similar to that of the prior cycle. However, the emphasis will be not only on fidelity of focus but on the sustenance of plausibility as well. If these are found to be upheld then it becomes meaningful to examine the various forms of feedback. If they have not been upheld then concerns with refocusing or redirection need to be raised.

o How Dependable Are the Various Forms of Feedback?

The most critical form of feedback concerns the 3rd party surveys of the clientele benefits for they are the source for gauging whether or not intended effects are occurring. If they are inaccurate, then so too are the LCGT's decisions about intended effects. The PE will want to devise a means to check on their accuracy, assuming of course that they are done properly (as specified in Chapter 12). If not done properly, then the PE will want to conduct his/her own assessment, which may involve client interviews using some sampling plan, etc.

The next important sources of feedback involve success stories and successful practices. The success stories give a clear, concise picture of the benefits of the program to a single individual client. Their credibility should be checked if such is deemed necessary and appropriate. If new practices are infused into the program then the ways in which they are identified, introduced into the program and "tracked" for their success rate will need to be examined to see if they meet reasonable criteria of successful performance (or other such criteria in the case of efficiency). Finally, the success of the effort to keep stakeholders involved will be examined to determine how well it was done and whether or not some independent interviews need to be conducted to document their veracity. The PE may want to use the questions in Table 7.1 as a guide for probing stakeholder understanding.

The level of effort devoted to these verification exercises will depend very much on the size and scope of the program and available resources as well as on how well management has done its' job.

The PE will then make some final judgments concerning the maintenance of fidelity and sustenance of plausibility. If the lack of veracity of the forms of feedback put either of these in doubt, then the PE will want to make some recommendations concerning remedial or redirective actions that might be taken.

An alternative to the above would be to conduct some form of field investigation involving clientele, that would be completely independent of the rhetoric of the program, reporting system, the staff, etc. This might be akin to what Scriven calls "goal free" evaluation (1993, 1991). Of course the investigatory staff would have to have an appropriate level of naivete' concerning the program.

15.10 Evaluation Issues and Methods for Program Redirection

Chapter 13 showed how a program can be a candidate for redirection either individually or with respect to all of the programs that the organization offers. Whether such judgments are made for a single program by the LCGT or by a larger group for the whole organization, certain considerations must be dealt with. They deal with the organization's mission and the current status of the problem. Programs that are no longer within the organization's mission are automatically candidates for redirection. So too it may be for a problem that has changed or for a program that has failed to impact the problem. The PE will want to check to see if there is a mission statement that serves adequately as a guide to redirection and whether the nature of the problem(s) have been dealt with in any redirections that have taken place. However, the redirection process for a total organization is a much more complicated process involving a wide variety of others - it is more difficult to do and more prone to controversy. Basically however, the methods to be used are logic and qualitative analysis perhaps with some interviews with former participants to gauge their retrospective views and reactions.

The PE will want to focus on how the targeting and ranking process was carried out and whether judgments were corrupted by: factors or special interests; "chunking" (a program profile that is prepared in such a way that no components or activities can be eliminated); erroneous classifications; how well the phase-out or transfer out process was managed, etc, in order to judge the integrity of the process.

15.11 An Algorithm for Life Cycle Program Evaluators

Suppose that you are a PE and that you are requested to conduct a third party, independent evaluation of a particular program. Suppose further that you choose to function in a fairly independent manner so as to avoid being unduly influenced by the staff. Before you can design an evaluation however you will need to learn something about what stage or cycle the program is in as well as what transpired in earlier cycles. A recommended way of doing this is to start at the first cycle (problem finding) and systematically work through the evaluative questions for each cycle until one reaches a point where one of two conditions prevails: (1) further effort would be fruitless because of what was found out; or (2) more information is needed and would be useful but a greater level of effort may be required to obtain it. For example, if a field information gathering effort is required then some considerable additional amount of resources may be needed over and above the time of the one or two PE's who have been assessing the adequacy of the various cycles. [Alternatively, their time augmented by travel and transcription expenses might suffice.]

An algorithm to guide this process is given in Figure 15.5. It shows the PE as proceeding to the next cycle only if the questions are answered appropriately for the current cycle. If not, then the PE need not proceed further but is to make some recommendations about how the situation might be remedied (including being scrapped). [A PE might conceivably examine what was or is being done in other cycles in order to strengthen these recommendations.] We have not depicted a large field data collection in conjunction with the implementation cycle because one may not be needed - a small sample effort might suffice to determine the veracity of the forms of feedback. Program effects are investigated only if the current and preceding cycle conditions have been met and some formal, independent effort is warranted. [Otherwise, for normal management operations, the information that is available will suffice.] For this a more substantial effort may be required and hence, is discussed in the next chapter.

It may be of interest to speculate on a few of the kinds of conditions or decisions that would affect the recommendations a PE might make. There may be events that impinge on the LCGT over which they have little or no control. For example, budget cuts may result in staff reductions in ways that no longer allow a sufficient level of effort to be devoted to the program - hence a loss of plausibility. The PE might recommend that the program be restructured so as to be concentrated at an appropriate level of effort either by working more intensively in fewer target areas or with fewer clientele. Short of being able to make such changes, the PE might recommend phase-out. Another is that in the time since the program was started a better understanding of the nature of the problem has developed which suggests certain changes be made in the program. These could entail restructuring, revision of materials and delivery methods or phase-out.

Decisions made by the LCGT which would affect recommendations concern accomodations and compromises that were made in different cycles that would cause "drift" to occur. For example, in moving to new target areas changes in scheduling in a locale may cause them to move away from the "neediest" clientele. Hence, the PE would recommend some sort of refocusing.

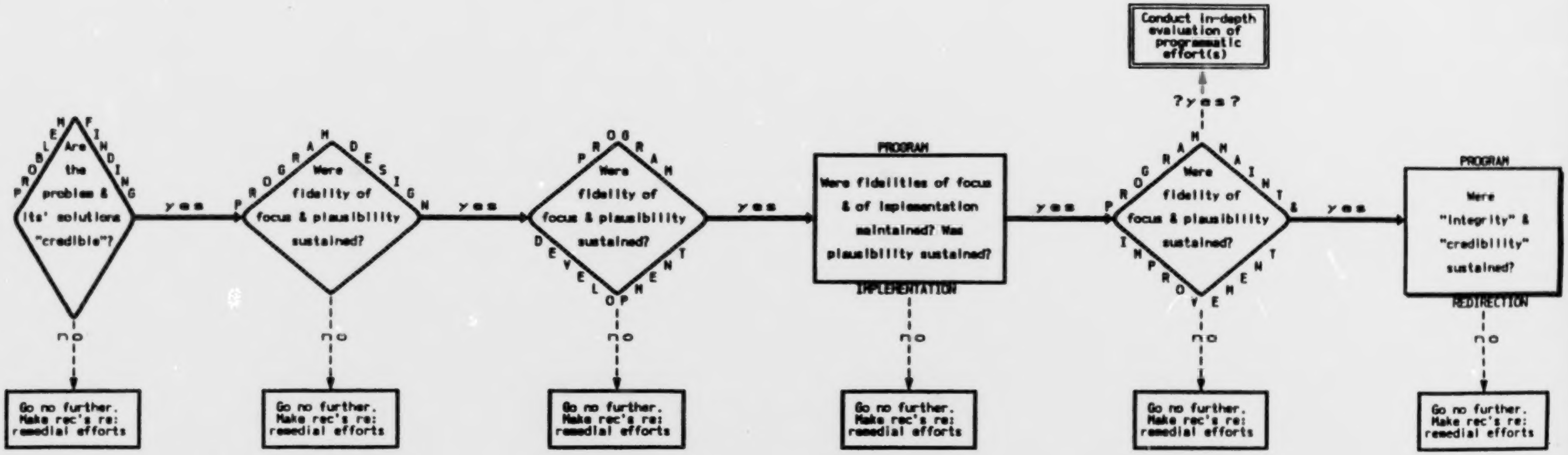
Finally, upon examination of the reporting system the PE may find that the numbers reported tend to be "biased" in a direction that is considered desirable. The PE may determine the extent of this "bias" and recommend some corrective actions that could be taken by the LCGT (e.g. closer supervision of the sources of bias).

15.12 What Role Do Stakeholders Play In the LCPE Process?

In the preceding chapters we have dealt extensively with stakeholder involvement in the LCPM process yet have dealt only slightly with the concept in the LCPE process. This is because much of the work that PE's would do would not require much stakeholder involvement. If all of the conditions of stakeholder involvement have been met as part of the program, there should be little doubt as to who they are or what their interest in the program might be. It is not necessary to reach out to a large number of them to seek their views concerning the performance of the program. Their views should be known through the feedback they provide and which the PE's substantiate. However, the PE's might want to set up an advisory group composed of key stakeholders that they work with and review progress with them in the course of doing their investigation(s), especially if some extensive field work is involved. For the latter, some additional effort might be made to gather the views of a larger number of stakeholders, perhaps using some of the questions in Table 7.1 as a guide.

Of far more critical concern for the PE(s) is who is requesting the LCPE and what their reasons are for doing so. The reasons may arise out of conflicts that are intransigent in nature among different groups and are pursued with a passion that can be perilous for whoever gets in the way. Such a situation might be a compelling reason for having the advisory group cited above.

Figure 15.5 An Algorithm for Life Cycle Program Evaluators


PROBLEM FINDING
Are the problem & its' solutions "credible"?
yes
PROGRAM DESIGN
Were fidelity of focus & plausibility sustained?
yes
PROGRAM DEVELOPMENT
Were fidelity of focus & plausibility sustained?
yes
PROGRAM
Were fidelities of focus & of implementation maintained? Was plausibility sustained?
IMPLEMENTATION
yes
PROGRAM MAINT &
IMPROVEMENT
Were fidelity of focus & plausibility sustained?
?yes?
Conduct in-depth evaluation of programmatic effort(s)
yes
PROGRAM
Were "integrity" & "credibility" sustained?
REDIRECTION
no
Go no further. Make rec's re: remedial efforts

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Chapter 16.0 Conducting In-Depth Evaluation Studies

In this chapter we will assume that there is a compelling need to evaluate an ongoing activity of an organization but that this activity may or may not be classifiable as a program. We shall call this a **programmatic effort/topic**. Further, we will assume that this need overrides any considerations that may have resulted from the steps gone through in Chapter 15, if such steps were actually taken. This need may arise from legislation or some other form of mandate, may result from an organization's need to document its capabilities or assess its' potentialities or, may be an absolute condition of funding.

There are three main purposes for conducting in-depth evaluation studies:

o **Program Justification** - to document that the program resources are being used in a responsible way for the intended purposes and that these purposes are being achieved.

o **Program Implementation/Improvement** - to document that the program is being carried out in the manner intended and/or to identify ways in which program performance in terms of delivery, efficiency and/or effectiveness might be enhanced.

o **Policy Formulation** - to assess the possible effects of changes in the way activities are currently conducted or to assess the potential of new ventures.

Conceivably, a single study might satisfy all three purposes. However, it is more common for a single study to focus on one of the purposes as its' primary purpose. In addition to these three purposes, in-depth studies may be initiated for **strategic or tactical purposes** as well. Examples of these are:

*To inform, postpone or avoid a debate
*To lend credence, support &/or consolation to a minority viewpoint(e.g. the group that was outvoted)
*To fend off "threats" (actual or potential)
*To gain a competitive advantage

* To demonstrate capability
* To gain recognition
* To demonstrate relevance
* To enhance status with a funding source

The first two often emanate from legislative committees while the remainder are ones that an organization or program director may pursue and are similar to some of those cited in the previous chapter as an organization's reasons for sponsoring a program.

In Extension, in the past 15 years, a variety of national evaluation studies have been conducted. Some of them focused on existing programs such as Integrated Pest Management, Nutrition Education for Low Income Families, 4-H Alumni and Youth-at-Risk. Other studies focused on certain delivery methods within Extension such as Leadership Development and Volunteerism - topics which cut across most Extension programs. A third kind of study focused on a variety of policy concerns including the functioning of Cooperative Extension as a system or as part of a larger extension-

Table 16.1 Examples of In-Depth National Evaluation Studies Conducted by The Cooperative Extension System (CES): Impact Studies

Programmatic Title	***Nutrition Education for Low-Income Families***	***4-H Youth Development: Alumni***	***Extension & Volunteers***	***Integrated Pest Management***
Programmatic Description	*Indigenous para-professionals are employed & trained to work with low-income families, especially those with young children, to help them acquire the knowledge, skills, attitudes & changed behavior necessary to improve their diets.*	*The CES provides informal research based educational programs for youth which integrates life-skill development into a curriculum that includes agriculture, home economics, natural resources & community development.*	*The CES exists in most counties & provides research-based information & educational programs from State Land-Grant Universities & the U.S. Dept. of Agriculture. Volunteers helped create the CES in the early 1900's & continue to guide its growth & development. Some volunteers have specific titles: 4-H leader, Extension homemaker,master volunteer, agricultural cooperator. Others work on committees or projects without titles. Some are from community organizations which seek Extension assistance.*	*IPM programs are based on the concept of monitoring agricultural or urban situations to provide information on pest population levels, stage of crop development, crop prices, & other factors pertinent to making rational pest management decisions. Once a critical threshold has been reached, the type of corrective action necessary can be taken. Pesticides, biological control agents, cultural practices, resistant host plants, trapping techniques, & genetic modification of pests may be used separately or in some combination to reduce the impacts of pests on a crop or urban situation.*
Stakeholder Involvement	*Advisory group representing different levels of program operation; interviews of nutrition education community.*	*Advisory group representing different levels of program operation.*	*Advisory group representing different aspects of volunteer work including some volunteers themselves. A national network of state & county staff also served in an advisory role.*	*Wide consultation with Extension staff, consultants & clientele of the program.*

Study Components/ Methods	*Congress directed that an objective & independent evaluation be conducted in order to determine program effectiveness. An evaluation was designed by agency staff and conducted by external contractors, which had 4 components:* ***program objectives*** *- examined through national level interviews of 57 persons associated with the program or related programs;* ***targeting of funds & services*** *- examined by* ***analysis*** *of county level demographic & program participation information (Food Stamps; Women, Infants & Children; Health Clinic, etc.);* ***relationship to other nutrition education programs*** *- examined through an exhaustive* ***search & synthesis*** *of extant literature, legislation, etc.;* ***program implementation & effectiveness*** *- examined through 2,000 field* ***interviews*** *conducted in 9 states and 36 local sites (6 states & 30 sites selected at random, the others selected judgmentally to exemplify desirable management practices) of: program participants with varying lengths of time in the program (recruits, homemakers at 6 month intervals & graduates, selected at random); program aides; state & local Extension administrative staff; staff of allied programs & through case studies of program variations in 6 states (e.g adaptations to needs of special groups or local conditions).*	*Attempted to determine the benefits 4-H alumni received from their experiences & to identify community related activities in which they are currently engaged. The study was conducted by evaluation specialists from Texas A&M University with guidance from Extension staff.* ***Telephone interviews*** *were conducted with a* ***national random sample*** *(obtained by random digit dialing) consisting of 1,762 adults (710 former 4-H members, 743 former members of other youth organizations, & 309 adults who did not participate in any organizations when they were young).*	*An extensive multiyear study was initiated to document the nature, extent and value of CES's work with volunteers. The study was conducted by evaluation specialists at the University of Wisconsin-Madison. It focused on the benefits that clientele & communities receive from volunteers as well as the benefits that volunteers themselves derive from their participation. The study findings are based on* ***interviews*** *(phone & face-to-face) with more than 1500 volunteers, 600 clientele, 600 community observers &* ***survey reports*** *from more than 1000 Extension agents in a randomly drawn sample of 315 counties across the U.S. The 10% sample included counties which were: rural & urban, farm & non-farm, poor & affluent, sparsely & densely populated, located from coast-to-coast & border- to-border.*	*Study objectives were to: (1) measure some of the impacts (agricultural, social, economic & other) on clientele; (2) determine social & economic characteristics of participants; &, (3) identify the scope & nature of resources used in IPM programs. Information was obtained from Extension IPM personnel & private pest management consultants about their background, training, experience, philosophy & practice of IPM, through separate* ***national surveys*** *(mail). Similar information was obtained from clientele as well as their philosophy & practices of IPM but via* ***a series of case studies*** *(mail) focused on separate commodities (by # of states) of: almonds (1); apples (2); corn (1); cotton (2); peanuts (1); soybeans (1); stored grains (1); tobacco (1); urban (1); and, alfalfa seed (5). These states included all regions of the U.S. Evaluation specialists at Virginia Tech conducted the overall study in cooperation with state Extension staffs.*

Table 16.1 (continued): Impact Studies

Programmatic Topic	**Farm Financial Planning & Management**	**Family Financial Planning & Managememnt**	**Contemporary Youth & Contemporary 4-H**	**Futures & Options Marketing: Pilot Program**
Programmatic Description	*The CES provides financial planning & management (FPM) programs for farmers throughout the U.S. These programs became important during the mid-1980's when many farmers experienced financial stress.*	*Programs in family financial planning & management (FFPM) are offered by CES throughout the U.S. in both rural & urban areas & cover many aspects of FFPM.*	*Through 4-H, CES uses the research & knowledge base of USDA & the Land-Grant Universities to provide educational programs which help youth to acquire the knowledge, develop life skills, & form attitudes that will enable them to become self-directing, productive & contributing members of society.*	*Congress mandated a pilot program to help farmers gain proficiency in using forward markets to gain price stability & income protection. An advisory panel of experts (producers, processors, exporters & futures & options traders) was convened to formulate the program which was first initiated in 41 counties & 22 States through a series of orientation sessions provided jointly by CES & ASCS.*
Stakeholder Involvement	*Federal & State Extension staff*	*Federal & State Extension staff*	*Advisory group representing different levels of program operation.*	*Interagency consultative panel (ERS, CES, ASCS, subject matter specialists, Commodity Futures Trading Commission).*

Study Components/ Methods	A national study was initiated to document the extent of FPM programs & to determine the impact of specific programs on participants. Evaluation & subject matter specialists at the University of Missouri **surveyed** (mail): staff of all States & terriroies to describe their programs ; program participants in 20 States; and, in-depth mail **surveys** in 12 Sates to determine impacts - the programs included farm business management, farm financial statements & estate planning.	A national study was initiated to document the extent & impact of FFPM programs on participants. Evaluation specialists at the University of Missouri conducted the study. FFPM staff in all States & territories were **surveyed** (mail) to describe their programs & impacts were examined for 4539 participants in 13 States.	A team of evaluation specialists from the Universities of Wisconsin-Madison & Mississippi designed & tested a study design which intended to support a longitudinal study of youth participation & benefits by the following: 2 States from each of 4 regions were drawn at random & then 1 county was drawn in each State. Random-diigit dialing (RDD) & screening were used to develop a random sample of youth ages 9-18. A sample of 4-H youth were were drawn randomly from current membership rosters. A total of 306 **phone interviews**, each with 1 child & 1 of their parents were completed (including 157 RDD & 149 roster youth). They were asked about the nature of their involvement in 4-H & other nonschool youth activities &what they thought they were receiving from them. Parents were asked about family background & their own participation in youth programs (response rates were 67% for RDD's & 95% for 4-H roster youth).	Evaluation experts at the University of Idaho **surveyed by phone**, a 50% sample of the 1,970 participants to determine: the extent of use of F/O markets & reasons for lack of use, decisions participants made on whether or not to take market positions & the rationale, the extent & type of market positions taken outside the program & reasons thereof.

Table 16.2 Examples of In-Depth National Studies Conducted by the Cooperative Extension System (CES): Implementation Studies

Programmatic Title	***Leadership Development***	***Youth-at-Risk***	***Water Quality Demonstration Projects***	***Polish/American Extension Project***
Programmatic Description	*Extension staff conduct a wide range of educational activities aimed at developing leadership skills among rural & urban residents, local government officials, homemakers, officers & members of agricultural commodity groups & other volunteer associations, 4-H club leaders & members, & many others.*	*In cooperation with the Nat'l 4-H Council & private foundations, CES offers programs for youth in at-risk situations in nearly 100 sites across the nation, focused on: schoolage child care education, reading & science literacy, & coalitions for high-risk youth.*	*As part of a larger gov'twide initiative to protect ground & surface water from contamination by fertilizers & pesticides, CES in collaboration with SCS & ASCS are jointly sponsoring 16 water quality demonstration projects intended to accelerate the voluntary adoption of currently available & new practices, by farmers, ranchers & foresters.*	*As Poland moves from a centrally planned economy to a democratic market-based economy farmers are experiencing a great need for understanding of private market principles & individual decisionmaking. This project has addressed this need by providing U.S. Extension professionals to work side-by-side for 6 months with Polish counterparts in the provincial agricultural advisory centers to collaborate in developing educational programs in free market economics & business planning for Polish farmers & agribusiness & to show center staff how they could better respond to clientele needs.*
Stakeholder Involvement	*Advisory group representing different aspects of leadership development.*	*Advisory committee of Federal Extension staff.*	*Interagency, USDA & Federal Extension Water Quality teams*	*Panel of senior officials from the FAO, USAID & CES*

Study Components/ Methods	*In order to describe & assess CES's leadership development work a 2 phased study was designed & carried out through a combination of in-house staff & staff from the University of Washington. The first phase dealt principally with definitional & measurement issues & entailed an extensive* ***literature search & review, & consultation*** *with a wide range of persons involved in leadership development concerning their views. In the second phase, all state administrators & a nationally representative cross-section of nearly 3100 Extension staff & their supervisors, representing all States, territories & program areas were* ***surveyed*** *(mail) about their leadership development activities*	*Evaluators from an outside contract firm* ***visited 18 sites*** *across the country, including a mix of rural & urban programs, geographic regions, & focus areas. On site, evaluators* ***interviewed*** *staff, collaborators, & coalition members; conducted focus group sessions with children, parents, & volunteers; & observed ongoing activities such as after-school programs & staff meetings; in order to judge overall design & effectiveness of the projects, identify methods for improvement, & gauge probable future success of program efforts.*	*Due to the short time periods for project development & implementation, USDA requested a formative evaluation of the 1st 8 projects (in 8 states) so as to help all projects learn from these initial experiences. A 17-person interdisciplinary & interagency assessment team was formed by evaluation specialists at the University of Nebraska. Mini-teams of* ***4 persons*** *from this larger* ***team made 3-day site visits*** *to each of the 8 projects within 3 - 5 months after they received initial finding. The assessment team then traced the evolution of the demonstration projects the 1st year through* ***follow-up phone interviews*** *with key project staff.*	*A 3 person team of external evaluators from CES & USAID conducted* ***on-site interviews*** *with Polish national & provincial staff & program clientele to document project content & scope, determine extent to which free market principles & educational techniques were transferred to center specialists, advisors & staff, assess the extent to which centers developed the ability & organizational capacity to carry on activities with clientele, assess the development of advisory committees & their influence on programming,& identify project effects on related institutions.*

Table 16.3 Examples of In-Depth National Evaluation Studies Conducted by The Cooperative Extension System (CES): System/Policy Studies

Programmatic Topic	***Agricultural Weather Information Systems***	***Integrated Programming to Increase Farm Profitability***	***Producer Marketing Alternatives***
Programmatic Descrtiption	*Advanced weather information is not available to most American farmers despite high potential benefits & commendable efforts by many individuals & organizations to generate & deliver such information.*	*CES conducts educational programs that integrate production, financial management & marketing programs to help agricultural producers achieve maximum economic returns. ECOP endorsed this approach & encouraged its use.*	*In view of changing & turbulent market conditions, the understanding & use of marketing alternatives by producers becomes increasingly important to their economic progress.*
Stakeholder Involvement	*CES, CSRS, ARS, World Ag. Outlook Board & the National Wearher Service*	*Federal Extension staff, ECOP*	*Federal & State Extension staff*
Study Components/ Methods	*To learn why, evaluation & subject matter experts at Michigan State University conducted a study of public & private sector agricultural weather programs. The study was designed to: identify available technologies; identify components required for an effective weather information system to operate; determine the potential benefits of such a system; & recommend a strategy to improve agricultural applications of real-time weather information. Key individuals* ***surveyed*** *in each State & territory provided a wide range of information on developing & using ag. weather info. technologies. Researchers, Extension staff, administrators & producers shared their knowledge & informed opinions. A cross-section of 8 States were selected for a more detailed examination. Other government agencies also added their cooperation & assistance.*	*Evaluation & subject matter specialists at Texas A&M* ***surveyed by mail****, all States & territories to identify the nature & incidence of their integrated systems programs; describe their development & implementation; & identify alternative ways of producing them. Based on these survey results,* ***site visits*** *were made to* ***10 States by*** *a multidisciplinary* ***team*** *of specialists to obtain qualitative information on program philosophy, problems encountered & how resolved.*	*Evaluation & subject matter specialists at Texas A&M conducted a* ***mail survey*** *of some 3500 producers of agricultural & forest products to assess their use of marketing alternatives & their need for educational assistance.*

Table 16.3 (continued): System/Policy Studies

Programmatic Title	***Nationwide Extension System***	***State Funding for The CES***	***Extension/ Research Complex***
Programmatic Description	*The CES had been experiencing a number of organizational changes brought about by declining resources & the desire to make the system more issue-oriented & less disciplinary-based. In response to these concerns as well as to the proposal that the Federal partner be eliminated or greatly reduced, ECOP sanctioned a series of studies to examine various aspects of these changes.*	*After some 15 years of growth, State appropriations for Extension began to decline consistently over a 2 year period.*	*The CES is an information transfer & education agency that may be viewed as one agency in a complex comprised of several types of public sector agencies, numerous types of private sector organizations & millions of individual & group users of them. The needs of users & the public are met primarily through the generation & voluntary adoption of improved practices & technologies.*
Stakeholder Involvement	*Advisory group of Federal Extension staff; ECOP*	*Advisory group of ECOP members.*	*60 persons representative of the different actors in the complex provided review comments.*

Study Components/ Methods	*Explored the questions of what value there was to having a Nationwide Extension System & what would be lost if the Federal partner were eliminated. It sought the opinions of persons judged to be familiar with &/or have a special interest in such a system, i.e. stakeholders. Those (phone)* ***interviewed*** *(by a combination of in-house staff & evaluation specialists from the University of Maryland) used their own language in an* ***open-response format*** *to 9 general questions. 121 potential interviewees were identified from diverse groups, including but not limited to: Federal & State Extension administration, program leadership & other staff; Land-Grant University administration & staff; State Departments of Agriculture; Rural regional development center directors; Extension User's Advisory Board Members; Extension Agent's Associations; individual Extension clients; &, members of the Press. Of these, 105 persons were interviewed &* ***content analysis*** *of their responses into categories allowed trends to be identified.*	*An assessment was conducted to better understand the factors that influence the State level of appropriations for Extension & to identify strategies being used to gain or maintain financial support. In a sample of 12 States,* ***interviews*** *(face-to-face) were conducted with 115 decisionmakers including: directors of Extension & of Experiment stations, deans of agriculture, top university officials, representatives of the Boards of Regents, executive & legislative branches of state government, constituent groups, & Extension field staff. Interview results were* ***qualitatively analyzed*** *by the 6 member assessment team (comprised of an equal number of Federal & State evaluation staff).*	*This study was intended to: help legislators, policy makers, & other leaders in the public & private sector gain a common understanding of CES's current & potential roles & relationships in the generation & adoption of technologies & practices; further CES's effectiveness in a new era of budget limitations, int'l competitiveness & increasing requirements for close interagency coordination & cooperation;* ***synthesize the results*** *of 25 recent nat'l studies plus 200 other publications; in order* ***to develop a new conceptual model of the complex*** *(with the synthesis & model development done by in-house staff).*

research complex. Brief descriptions of some of these studies are given in Tables 16.1*, 16.2* and 16.3*. The first 8 studies focus on the impacts of different programmatic efforts (Table 16.1). The next 4 deal with implementation concerns (Table 16.2) while the last 6 focus more on system concerns with a policy orientation (Table 16.3). The initiation of such studies assumes that there is something of value to be learned from what is going on that is of sufficient magnitude to justify the expenditure of considerable time (perhaps as much as 1-5 years) and resources (usually in the range of 50,000 to 750,000 dollars). These studies often have some requirement that the principal investigator or PE have some third party status with respect to the program or topic being investigated.

16.1 Comparative Analysis of In-Depth National Evaluation Studies

Let us examine each of these types of studies in turn to see if there are some general principles that might be deduced as guidelines for future efforts. The 8 **Impact** studies all address how clientele of the programmatic effort benefited from it. Six of the 8 (the 4-H studies exempted) examined how the programmatic effort was implemented and all 8 examined in what ways clientele participated. Stakeholder involvement was always present and sometimes substantially so (e.g. Volunteers & Nutrition Education). The methods used were highly varied in how they approached clientele (current, potential &/or former). A survey often by mail &/or phone was not uncommon at times followed up by more intensive survey or site visits. Usually sample clientele were obtained from a roster of participants. However, for the 4-H studies random digit dialing was used to obtain clientele &/or groups to compare them with. In the case of Contemporary Youth, 4-H families were more willing to be interviewed than others. The 4 **Implementation** studies all focused on how a programmatic effort was being carried out. Except for Leadership Development, all of them focused on efforts that were relatively new - at least at the time of the study. Stakeholder involvement is present in each one but not as extensively as for impact studies, with the exception of Leadership Development. The methods are quite varied with 3 of the studies using site visit teams with on-site observations and interviews. Two use a survey - one by mail and the other by phone. The 6 **system/policy** studies are more varied in the topics that they address than are the other studies with somewhat more varied stakeholder involvement and study methods. The nature and extent of stakeholder involvement may depend more on the importance or controversiality of a topic than on the fact that it is a system/policy type of study. Of course the same may be true for the other studies too. The methods are also varied ranging from teams of observers through phone interviews and mail surveys to an extensive literature search and synthesis intended to result in a new conceptual formulation. Overall impact studies focused more on the "how did it go and with what effect?' type of question while implementation studies focused more on the "how is it going?' type of question. System/policy studies in contrast, focused more on the "what might be?" type of question.

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* The appropriate references for these studies are: *Impact* - (Mayeske, 1982; Ladewig & Thomas, 1987; Steele et al., 1989; Allen & Rajotte, 1987; Brown & Hale, 1988a, 1988b; Steele, 1989; Makus et al., 1989) - *Implementation* - (Michael, 1989; TASCON, 1993; Rockwell, 1991; West et al., 1993) - *System/policy* - (Bartholic et a.l, 1987; Lippke, et al., 1987; R. Smith, 1989; Mayeske, 1990; Bottum, 1993; Bennett, 1992, 1990).

16.2 Tailoring Questions and Methods to Study Types

These observations suggest that there are two general questions that can be used as "a lead in" to any programmatic effort/topic: (1) what is its nature and extent; and, (2) what benefits accrue (or might accrue) because of it? By breaking down these seemingly simple questions into a series of subordinate ones - they can be "tailored" to fit a particular circumstance. However, obtaining answers for them may entail a great deal of complexity. One breakdown of these questions is given in Table 16.4. We shall see in the sections that follow that the questions apply differentially for the different study types. They are most appropriate for impact and implementation studies and less appropriate for system/ policy studies due in part to the diverse nature of the latter.

Let us examine what each question might entail.

1. Where is it being carried out?

[This question has great salience for the impact and implementation type of studies but may not be as important for the system/policy type of study - sometimes because its answer is already known.]

The question implies that we can specify a "universe" of units (e.g. county office, county staff or other) that can be queried concerning the presence or absence of the effort. In Extension for example, the universe might be all States and territories or all counties. Similarly, within a single State it might be all counties. If a universe file is available then it must be up-to-date or be updated. For example, a universe file of staff must be updated periodically since leavers and new hires occur frequently. In the absence of a universe file one would have to be developed. If a system of records is available that contains descriptive information on these units (e.g. applications for project funding or payroll information for staff) and it is judged that they do not suffer from any significant biases then they might serve as a universe file. If one has to be developed then it requires that a census type survey be conducted of **all** units gathering a very limited amount of descriptive information about each one. This descriptive information will usually be of a "non-judgmental" type (viz. not subject to much error) such as numbers of employees, numbers of buildings, geographic size, etc. thereby avoiding building errors into what may become the basis for selection of a sample.

Table 16.4 Generic Questions for an In-Depth Evaluation of a Programmatic Topic

1. **Where is it being carried out?**
    - What is its geographic (or other) distribution?
        - How many locales of the total are involved?
        - What is the incidence or concentration of effort by geographic locale?
            - How "appropriate" are these locales compared to the others?
2. **Who participates?**
    - How many are there?
    - What are their "key" attributes?
    - How appropriate is it for them to participate according to different criteria?
    - Are there non-participants for whom participation would be "appropriate"?
        - What are their "key" attributes?
3. **In what ways do they participate?**
    - How often?
    - For how long?
    - In what kinds of "experiential environments"?
4. **What benefits result from the programmatic effort?**
    - How are participants different?
    - Do some participants benefit more than others?
        - Are there special considerations that may have an effect on how they benefit (e.g. unmet needs, unplanned for needs being met)?
        - Are some practices or approaches more beneficial than others?
        - Are there "exemplary " practices or approaches? If so, in what ways do they differ from the others?
5. **Are there other effects (positive or negative)? If so, what are their implications?**

Given the availability of a universe one can work with it in its entirety (e.g. all 50 States) or plan to draw a sample from that universe using well known sampling procedures (Dillman, 1978; Henry, 1990). In Extension it is not unusual to use stratified sampling procedures to insure that the sample is diverse with respect to such concerns as geographic and rural-urban differences. For example, in the Volunteer study a stratified probability sample of 315 counties was drawn that ensured the inclusion of such differences. In the Nutrition Education and Youth-at-Risk studies small random samples were drawn so as to ensure the presence of rural-urban, geographic and program focus differences (the latter for Youth only). For Leadership Development a sample of 3100 staff were surveyed , stratified for State/territory and program area representation. For Water Quality Demonstration Projects there were only 8 sites available at that time and all were included in the study - a universe sample.

The sample **units** may be asked to respond to a form (either mail or phone) which describes in some considerable detail the nature of their involvement with the programmatic effort. It is assumed that there is at least one person at each unit who can give a knowledgeable response. However, depending upon the topic the responses of several persons may be required. Very high response rates are attainable in surveys where the respondents are your employees or are recipients of funds from your organization. Rates of 100% should be planned for and budgeted accordingly so that a number of follow-ups to the units can be made. Additional time may also be required to do the follow-ups. A form of friendly persuasion coupled with a dogged persistence usually pays off even though additional time is required. However, the effort put forth more than compensates for an unbiased sample. In the study of Leadership Development an 86% response rate was attained from staff while an 87% response rate was attained for stakeholder interviews (including Extension staff) in the Nationwide System study.In the study of Volunteers in Extension a 99.6 % response rate was attained from the staff of a sample of 315 counties (Steele, et al, 1989). It would have been 100% save for the fact that the agent in one county had died recently and the Extension Director assumed that there was no one to provide the information. Actually there was a knowledgeable staff secretary who could have done so and had the Director permitted, the response rate would have been 100%.

The information obtained in the survey can pertain to answers to some of the other questions in Table 16.4 as well. Some of these responses may entail a "good bit of judgment" on the part of the unit's staff. They may be asked to make judgments using definitions that are routinely used by them and therefore are quite familiar. At the other extreme they may be given definitions that have seldom if ever, been used by anyone and which therefore require a good bit of forethought and, if there is more than one person in the unit responding, perhaps a good bit of discussion between them as well. For example, one can easily count the number of participants in a nutrition education program if the program is structured so that an aide works with the homemaker in the home for an hour and one-half session once a month. The aide keeps a log of all this and the counting is easy. Imagine however, that we ask unit staff to tell us how many volunteers they work with in a year when the definition is anyone who "assists Extension or others through time, effort, funds or materials; is not paid by Extension; can be of any age and assist for short (2 hours or less) or long periods of time" (Steele, et al., 1989) Suppose also that many of the people who fit this definition are people the staff does not think of in terms of "their being a volunteer" even though they clearly are (e.g. that's just Don the local farmer with whom I am doing the aquaculture demonstration project). **As a general rule, the less familiar unit staff are with the definitions the greater the amount of attention that must be given to both pre-testing and adequate but clear**

and concise (as possible) instructions concerning their use. Pre-testing with a small sample of unit staff **must** be done to insure that the definitions can be used in the way desired and the instructions **must** be developed as part of this pre-test to try to insure that the definitions will be used in the desired way. Perhaps more than one set of pre-tests and revisions may be required.

The remaining subquestions are concerned with the concentration of effort by locale and the "appropriateness" of these concentrations. Information on concentration by locale may come from the unit sample survey (or from existing files if dependable, or from some combination of both) while that for "appropriateness" can come from a couple of sources if the question itself is "appropriate". For example, in some programs we would expect there to be a concentration of effort where the "need" is greatest. However, for some topics like Volunteerism, the concept of "need" is not directly relevant. One might find that there are proportionately greater numbers of volunteers in sparsely populated than in densely populated areas and this might be a reflection of the nature of the communities as much as it would be anything else - **it does not necessarily reflect the results of a decision concerning the allocation of resources**. However, when such a concern is appropriate, external sources of information might be brought in to perform comparative analyses of how the allocation of resources relates to these external criteria. For example, in the Study of Nutrition Education for Low-Income Families, data on the resources allocated to each site were analyzed against such external criteria as the number of low income families residing in the area, the number of families participating in different support programs (e.g. Food Stamps; Women, Infant & Children Program, etc.) to examine the extent to which the concentration of resources was in alignment with these external data (Mayeske,1982).

2. Who participates?

[As with the prior question, this one may have slight salience for system/policy studies but is of great importance for impact and implementation studies. If it is of importance for the former, answers can perhaps be obtained by recourse to extant information.]

How might we approach current or potential clientele of a program? We have four options: (1) mail; (2) phone; (3) face-to-face (including structured group interviews such as focus groups); and, (4) some combination of the preceding. One cannot meaningfully select among these until decisions have been made concerning the level of **credibility** needed for the information that is collected and the **cost** associated with attaining that level of credibility. For example, perceptual information can be obtained readily by all of these. But, if right and wrong types of information are to be obtained or specific competencies are to be demonstrated then a face-to-face setting may be required to ensure that the respondent actually has the competency. Alternatively, if credibility is not as acute then this same information might be obtained via the phone or even a mail survey. Or, if the information sought is such that an individual may not have a sense of it that can be articulated or highly critical information is desired, then some form of focus group setting might be most appropriate.

To fully address the issues of who is receiving or might be in "need" of assistance, **non-target as well as target areas need to be surveyed**. That is to say, one must address not only how many actual and potential participants there are in target areas but also in areas where the programmatic effort is not currently present as well. Because this kind of coverage can substantially increase study costs, PE's or their clients may opt for target area information only. In so doing they may be giving up not only their ability to adequately address the issue of "need" but also give up a potent source for purposes of obtaining comparison groups as well. The major concern is how to get to the universe of possible participants (current, former and potential). There are two ways in which such a universe might be accessed: (1) by sampling from a roster (that already exists or has been especially generated for purposes of the study); and (2) random digit dialing. Let's consider the latter first.

o **Sampling by Random Digit Dialing** - in this procedure telephone numbers are generated randomly, the numbers called and the respondents "screened" as to whether or not they are now or ever have been involved with the programmatic effort. In that initial contact or in some follow-up call, mail-out or personal visit, information on the respondents status with respect to "key" attributes is obtained. "Key" attributes are ones that are related to the kinds of targeting efforts outlined in previous chapters - individual/household/community/business enterprise attributes related to "need" for the programmatic effort as well as other socio-demographic factors. Information is also gathered on the nature and extent of their participation and how they might have benefited from participation (questions 3 and 4 in Table 16.4).

This approach has certain obvious advantages and disadvantages. Its main advantage is that it avoids dependence on roster type information which can be loaded with unknown or unspecifiable errors. It also avoids any knowledge on the part of program staff as to who might be a respondent as well as any behavior that might result from such knowledge (e.g. forewarning, coaching, biasing responses, etc.).It also has many disadvantages. It requires the use of a telephone which may not be appropriate for some audiences - low-income households may not have one. Another serious concern is that the respondent may not be the appropriate one to be interviewed - it could be a non-residential number, a FAX machine or a child home alone. An even more serious concern is that the respondent is the one wanted for interview purposes but refuses to be interviewed. This is an increasingly common concern and contributes to substantial non-response error. This error is compounded by the fact that those who have had some contact with the programmatic effort are more inclined to be interviewed than those who have not,as seen in the 4-H studies. This approach could be extremely expensive and not very productive if the incidence of "need" or the programmatic effort is small relative to the total population - far too many calls would have to be made to find out anything. [See Dillman (1978) for more on the pro's and con's of this method.] In such a case some other method such as use of a special roster would be preferable.

o **Sampling From a Roster** - in the unlikely event that a roster is available which allows one to identify a universe that is inclusive of the target population, the PE's task is greatly simplified. For example, in an instructional setting student records may be dependable enough to use. Or, information may be available in a county which is current, relevant and dependable. Or, commodity associations may have up-to-date membership lists, etc. Often however, rosters that are available are rife with error that is well nigh impossible to get rid of. Consider for example, a list of all persons who have been issued a driver's license in the past three years in State Z as a potential source for an evaluation of a seat belt safety program. Since residential changes are frequent and the factors related to residential changes are many (e.g. age, employment status, educational level, etc.) the roster is biased in ways that are difficult if not impossible to correct - those who moved have no known address; hence, are unreachable. Voter registration rolls and telephone directories have similar problems.

The development of a special roster may require considerable time and resources. The only way to provide the information needed may be to put actual enumerators in the field to conduct a complete census.However, the cost may be prohibitive. Clearly, there is a trade-off in terms of the accuracy of the information needed relative to the cost of obtaining it. For some purposes one might be able to tolerate less accurate information (e.g. when the lack of time precludes getting more accurate information).

Let us assume that however produced, we now have a universe roster that includes clientele (current, former, prospective, never). [Needless to say, the more information that is available on them the more a sample can be stratified prior to contact.] We shall assume that the sample drawn from the roster will have to be contacted via a letter or post-card to let them know that a contact will be forthcoming. [In the case of a mail survey, a direct mail-out may be possible.] This follow-up contact will probably be by phone to obtain the desired information or to schedule the person for a face-to-face setting, either by coming to where they are or by their coming to a central location. For this latter contact the same kinds of "key" attribute, participation and benefit information are obtained as described in random digit dialing.

For phone interviews, 20 minutes is about the maximum one can hope to get of a person's time. For mail surveys - the shorter and simpler the form the better - even 20 minutes of a person's time may not be attainable. For focus groups, substantial attrition can be anticipated in the numbers contacted versus those who actually show up for the focus group meetings. Exceptions are for persons who have some close connection with the programmatic effort.

What to do about those who refuse to be interviewed or respond is a vexing problem. Ideally one could just replace them with another random draw. However, those who refuse are likely to be systematically different from those who don't in ways that can affect the survey results. It is desirable to have some information on the non-respondents so as to gauge the ways in which their absence might have affected the results. This is of course easier said than done and is a task to which one can apply great ingenuity. For example, one might follow-up on a random sample of the "refusers" with an offer to reward them in some way (e.g. money, prize, etc.) to provide certain socio-demographic information which will enable comparisons to be made with the respondents.

What kinds of response rates should be planned for? Ideally one should try to attain 100% but with the general public such a figure is not likely attainable. **Short of 100% however, the concern is with the biasing effect of non-response on the results rather than an absolute percentage of response** (viz. 95% is not "good" if the 5% non-response were extremely different). If time and resources permit some trial tests might be conducted to better understand the nature of non-response. For example, a face-to-face interview with some non-respondents to a mail or phone survey might yield insights into the nature of non-response. Indeed, some such interviews might be a vehicle in themselves for raising the response rates. Dillman (1978) cites an example where non-respondents to a mail survey were followed up with a face-to-face interview. This served to increase the response rate substantially and showed that the reason for non-response was a lack of sufficient literacy to provide a written response to a mail survey. As a last resort one can perform "worst-case scenario" kinds of analyses to tease out what effects non-response might have had on the results (e.g. how different on a number of factors would the non-respondents have to be to distort the results and how likely is it that they are that different).

All of these concerns are important to obtaining estimates for the number of participants and non-participants.The size of the sample needed to obtain these estimates will depend on cost as well as on the level of precision desired. On occasion some breadth of coverage is sacrificed for greater depth of coverage.

3. In what ways do they participate?

[As with the prior questions, answers to this question may be obtained in a very different manner for system/policy studies than for the others. Further, for implementation studies the emphasis may be on the appropriateness of what is provided or the difficulties in doing so, rather than on their possible results.]

Both current and former participants will have had experiences with the programmatic effort that they can reflect upon. They can do this using a completely open ended format or one that is highly structured and perhaps highly detailed as well. An open ended format might use very general questions to which the respondent could "plug-in" their relevant reflections. For example, one could ask what their overall impressions are, what they liked most about the program, how they felt they benefitted, what they felt could be improved, etc.The problem with an open ended format is that if much time has elapsed since their participation they may have forgotten many details and hence give somewhat vague responses. A more structured approach might entail the development of an **experiential descriptor checklist** that would enable the interviewer to check off aspects of the respondent's educational experiences as they are described by them (or to them, as appropriate). If appropriate developmental work was done for the Educational Experience Profile in the program development cycle, then it should not be difficult to develop such a descriptor for a single program or even a family of programs. If such profile information is not available or the programmatic effort is very diverse, then some considerable developmental work may be required as part of the in-depth evaluation. The concerns of frequency (how often), recency (how long ago), intensity (group, individual, etc.) and duration (for how long) would be covered in such a descriptor.

4. What benefits result from the programmatic effort?

[Implementation studies do not usually deal with this question except on occasion to estimate probable impact. However, impact and system/policy studies do but in a very different manner. System/policy studies usually focus on the possible effects of some change but their means of doing so are highly varied and difficult to describe. For impact studies, something like the following may be appropriate.]

In a similar vein one can obtain information on benefits in an open ended format or one that is highly structured. It is conceivable that one could have a highly structured experiential descriptor with an open-ended format for benefits so as to avoid suggesting benefits to the respondent. For example, "how do you feel that you benefited from your participation in program XYZ?" Smith (1991) has developed a moderately structured format which emphasizes the concepts of **relevance, quality and utility.** This format is reproduced in Table 16.5. Even if not used exactly as presented by Smith, these concepts can serve as useful guides for the development of an interview format.

Just when would it be appropriate to have a series of structured questions about benefits?. There may be times when the need to document the occurrence or non-occurrence of a benefit overrides the concerns about leading the respondent. Or, there may be such a complex array of them that some will be overlooked if not mentioned explicitly. For such situations a **benefit checklist** might be developed which allows the interviewer or respondent to check off the benefit as it is cited (or read to the respondent, as appropriate). If there are special considerations that affect benefits they need to be examined as part of the benefits questions. Again these can vary from open-ended questions such as "are there other things that could have helped you benefit more?" to "which of the following best describes your situation as you participated in program XYZ?". Or, for unplanned needs being met "are there other ways in which you feel that you benefited from your participation in program XYZ?" to "are any of the following other ways in which you benefited from your participation in program XYZ?".

For some programmatic efforts the notion of how persons like the participants would have fared without the program is not an important one because it is obvious that the participant couldn't have acquired what they did elsewhere or without the program - the benefit is self-evident. Or what they could or could not acquire in the absence of the program is not of sufficient priority or relevance to be of concern. For example, how much or little children learn in the absence of schooling (or instruction) is not a question of interest. However, how to make schooling better is a question of interest and much time and energy is focused on identifying practices that can be used to improve schooling. However, for other programmatic efforts the question of why should one have the program at all is an important and relevant one that bears on the allocation and utilization of scarce resources. For them the question takes on considerable significance, We can recast the discussion by talking about the effectiveness of one practice versus another or of one approach (a package of practices) versus another. One kind of approach is

Table 16.5 Generic Evaluation Format Emphasizing Relevance, Quality and Usefulness

Program Identification _______

Please rate this program on its relevance, its quality and its usefulness to you. To answer circle a number at the end of each question. Space is provided for comments. Thank you very much.

(*Circle number*)

RELEVANCE		Yes, very much so				No. not at all
1.	Did this program deal with important needs or concerns for					
	a. you or your family?	5	4	3	2	1
	b. others in your community?	5	4	3	2	1
2.	Was the content what the program announcements said it would be?	5	4	3	2	1

Comments about the relevance of the program: ______________________________

____

____

QUALITY		Yes, very much so				No. not at all
3.	Was this program					
	a. current, up-to-date?	5	4	3	2	1
	b. understandable?	5	4	3	2	1
	c. presented in an interesting way?	5	4	3	2	1
4.	Did this program meet its advertised objectives?	5	4	3	2	1

Comments about the quality of the program: ______________________________

____

____

USEFULNESS		Yes, very much so				No. not at all
5.	Did the program answer any questions you had?	5	4	3	2	1
6.	Did it help you learn how to do new things or how to do others better than you knew before?	5	4	3	2	1
7.	Do you intend to use or have you already used any of the information or skills that you acquired. from this program?	5	4	3	2	1

Comments about the usefulness of the program: ______________________________

____

____

(*Circle number*)

8. **OVERALL**, was this program worth your time to attend?

Yes, very much so				No. not at all
5	4	3	2	1

Adapted from Smith (1992) *Criteria for Excellence.*
College Park, MD: University of Maryland Cooperative Extension Service

none at all, namely the absence of a program - a kind of zero point . How best to develop this zero point has been much discussed among social scientists and has generated a considerable body of literature (Shadish, et al., 1991).

Suppose that we think of these matters in terms of our having a yardstick by which we can record the movement that a group makes from one point in time to another, say from point x, at time 1 to point y, at time 2. Assuming that they are not just random fluctuations, we can compare the magnitude of movement for one group versus another to help us decide just how useful or valuable their approach (or practices) might be. If the group that represents the zero point (the no program group) is of sufficient importance to be included then the comparisons can be particularly instructive. The most widely recognized way of producing a zero point is through random assignment of potential participants to experimental (those receiving the program or approach) or control (those not receiving any program or approach but may receive some kind of placebo) groups. [If the zero point is not of interest, then random assignments are made to different kinds of experiential groups - one of which may be "the old way of doing business".] **If achievable and sustainable**, such randomized assignments are considered to be the best way to produce such points on the yardstick for purposes of comparison with other groups. However, there are many other ways to obtain values for purposes of comparison - a comprehensive list of these is given in Rossi & Freeman, (1993 ,see esp. pp's 243-259). They all suffer from various shortcomings when compared with the random assignment approach. Mood (1983) reminds us that even when random assignments can be attained, experiments can produce effects which may render them inapplicable to the whole population. Among these are: **the volunteer effect** (those who agree to participate in the experiment are committed to it and hence perform better than otherwise); **the Hawthorne effect** (those selected to participate have an enhanced sense of importance and hence behave differently than otherwise); **size effects** (small groups &/or small programs are easier to work with than are large ones and experiments tend to be of the former); **administration effects** (sponsors of an experiment tend to be highly conscientious about insuring the success of the effort but on a large scale the competencies and commitments of the staff may be far more varied and less enthusiastic). [These effects also apply to "pilot" & "innovative" efforts.]

Exemplary practices or approaches (a package of practices) are often identified through a subjective judgmental process that looks for extremes - practices or approaches that are "unusual" in one or more respects. For example, the practices can be considered unusually effective or efficient, or innovative, or very different in the way something is accomplished or produced, or they epitomize the very "best" of one's programming efforts, etc. It is often desirable to include in an in-depth study a non-statistical sample of exemplary practices so as to insure that some extremes are included that are sufficiently infrequent and hence might not appear in a statistical sample. By collecting the same kinds of information on them as on the statistical sample, one can make a variety of comparisons which could prove to be very instructive for future programming and for program improvement.

One might also conduct a series of case studies of some approaches that appear to be "meritorious" in some respects as identified from the analyses of the statistical and exemplary samples (Yin, 1989). For example, some could be unusually effective or ineffective and a team of observers might go into the field to document and/or gain a greater understanding of what is happening by observing the approach in action, by talking with local staff and clientele,etc.

The use of cost information can be most revealing - especially if one has satisfactory comparison groups - but it is usually overlooked (Scriven, 1991). Cost analysis and cost-effectiveness analyses whether using budgetary information or by converting resources used to cost figures can give yet another valuable perspective to in-depth studies (Levin, 1983).

5. Are there other effects (positive or negative)? If so, what are their implications?

[This question is applicable to all three types of studies.]

Basically this question is concerned with spin-offs that are produced by the programmatic effort - **unplanned occurrences** - which can be **anticipated**, like those in Table 9.33 , or **unanticipated**. Those that can be anticipated are usually positive in nature. It is the unanticipated one's that are likely to be negative and require detection by an observer who has keen powers of observation and a healthy degree of skepticism in order to pick up such things as the program making the problem worse or creating another problem that is similar in magnitude or even worse than the one it is attempting to ameliorate [see Sieber (1981) on "Fatal Remedies"]. Consider for example, a technology that dramatically reduces soil erosion while simultaneously dramatically polluting ground and surface water. Or, a program that creates a dependency of the clientele on the staff. Or, a program that decreases teen pregnancies but dramatically increases teen sexual activities. Or, the program works but the clientele can't stand it (sometimes called the "listerine" effect). The list of examples could go on but it suffices to say that a PE must be aware of such possibilities plus the occurrence of flat out fraudulence and incompetence and must be in a position to point them out if they are observed.

16.3 Some Issues in Data Analysis

Up to this point we have said very little about the analysis of data from in-depth studies. For ***Impact and Implementation*** studies there are any number of books that provide good guidance concerning analysis (e.g. Rossi & Freeman, 1993) whereas for system/policy kinds of studies the range of possibilities is very large entailing anything from "pondering with pen in hand" to sophisticated types of analyses entailing both qualitative and quantitative methods (see especially Patton,1990 for the former). Ideally the analyses would flow from the study questions aided by a number of detailed steps. For many such studies there are at least seven concerns that often arise and can be particularly vexing: (1) what to do about missing data; (2) how should items be scaled; (3) how to handle weighted data; (4) how to handle mixed levels in analysis; (5) whether or to what extent data reduction techniques should be used; (6) what models are appropriate for data analysis purposes; and, (7) what kind of a difference is worthwhile? Let us consider each in turn:

1. What should be done about missing data?

Suppose that some of the respondents did not respond to all of the questions or items or practice exercises. How can they then be included in the analysis along with those for whom a complete set of responses are available? A common practice is to assign them the average (or mean) of those who did respond on the assumption that they would be somewhere near the average if they had responded and recognizing that such an assignment would not greatly distort the values for the others. However, if they are not near average then such an assignment could be misleading not only for the analysis of that particular item but for it's relationship with other items or variables as well. If there is a single variable (or composite of variables) that is of overriding interest then each of the items can be analyzed against this "criterion" variable with a category especially created for the non-respondents. For example, suppose the "criterion" variable is the total score on an achievement test and that we are using it to determine what value we should assign to students who did not respond to "how many hours a week do you spend watching television", as follows:

Hours Per Week Spent Watching TV	Average Achievement Test Score
31 or more	Low
21 - 30	Medium
11 - 20	High
10 or less	Low
Non - respondents	Medium

Such an analysis would help us to decide how to classify the non-respondents. In this hypothetical case they would be assigned a scale value similar to those in the 21 - 30 hours category. The same procedure could be used for other items where missing data is a problem. Such a technique has been used extensively in studies of educational programs (Mayeske et al., 1972; 1973a; 1973b; 1975). When a criterion variable is not available an algorithm can be used to estimate values for missing data which assigns values in an iterative manner. Suffice it to say that if there is an extensive amount of missing data any imputation and analysis based thereon can be extremely misleading.

2. How should items be scaled?

Many items have a natural ordering. For example, actual height or weight can be used in their everyday metric for analysis purpose. For others, a natural ordering is not apparent. For example, an item with a "yes" or "no" response does not have a natural order yet it is easy to assign a higher value to the "yes" than to the "no" (e.g. yes=2, no=1) and thus the item is easily entered into analysis. However, other items are not so readily ordered. Consider for example, the creation of a variable designating the region of the country in which one resides (e.g. Northeast, North Central, West, South). If one wants to create a single variable for analysis purposes it is not apparent how this should be done. One way is to create some arbitrary ordering (e.g. Northeast = 1, North Central = 2, West = 3, South = 4). However it is difficult to ascribe meaning to such a variable let alone interpret its relationship with other variables. As in the previous example here again if a "criterion" variable is available an analysis like the preceding can be conducted to guide in the assignment of scale values. When the averages for the "criterion" variable are used as the scale values then the linear relationship of the item with the "criterion" is maximized (Beaton, 1969; Mayeske, 1969; Mayeske et al., 1972). In the previous example, the use of such values would have "linearized" a curvilinear relationship and the meaning of the item would have changed from "# of hours spent per week watching TV" to something like "optimum # of hours watching TV per week, as related to achievement". Such a technique can be extremely useful when one has a large number of items with categories that do not have a natural ordering. Then too, the use of such an analysis readily reveals curvilinear relationships. If such a criterion is not available, then a variable or set of variables that are of especial interest might be used to guide the assignment of scale values.

3. How should weighted data be handled?

When stratified sampling procedures are used one might be lucky enough to have a sample that is self-weighting (viz. no special weights are needed because the strata contribute to the sample in proportion to the population). More often however, some set of weights must be applied to the data to correct for disproportionate sampling. Such weights must be built into the analyses unless it is found that they make no appreciable difference in the analytic results. One can only be sure of this by doing both weighted and unweighted analyses. If a number of higher order analyses are done it can be exceedingly burdensome to do two sets of analyses. In studies that involve multiple levels the situation may become even more complex with each level having its own set of weights. For example, in a study of educational opportunities there were separate sets of weights for schools, for teachers and for students (Coleman, et al., 1966; Mayeske et al., 1972, 1973a, 1973b, 1975).

4. How should mixed levels be handled for analysis purposes?

It is not uncommon to find that different levels are entered into the same analysis framework. In the previous example, the levels were: students; teachers; schools; region of residence; and, rural-urban location. For these levels there is an upper limit to their explanatory power which can and should be computed so that the analyst can know what proportion of the total variation that could be explained at that level is actually explained. Consider for example the earlier example of student achievement. Suppose we observe in a mixed levels analysis that 3% of the total variation among students in their achievement is associated with their region of residence.If we also know from an among/within levels analysis that 3% is the maximum that could be explained by regional differences, then we would not look further into region as an explanatory variable. We might however, perform analyses of the regional differences with other variables at that level to better understand the possible origin of these differences. For some purposes such analyses at different levels may be preferable to lumping them all together in a mixed format. These analyses are called by various names such as levels analyses, among/within analyses or more appropriately as multivariate analysis of variance/covariance (see Mayeske & Beaton ,1975 for extensive use of these techniques as well as means for determining the maximums at each level).

5. Should data reduction techniques be used?

With any large data base it is often difficult to "see the forest for the trees". Data reduction techniques can and should, be used to "boil the data down" into a number of indexes or composite variables that are meaningful yet vastly fewer in number than single items or even single variables. For example, items related to a family's occupation, income, property and valuables owned, etc. can be combined into an index of socio-economic status or of general affluence, provided of course that the items are sufficiently interrelated to support their being combined. Factor analytic techniques can be used in a variety of ways to guide in making these reductions (Mayeske et al., 1972, 1973a, 1973b, 1975). Similarly, variables can be combined into higher order composites which can then be included in a number of higher order analyses and models (Mayeske & Beaton, 1975).

6. What are appropriate models for data analysis purposes?

Ideally there will be a logic model for data analysis purposes which specifies the hypothesized relationships between the program variables, intervening or intermediate variables and outcome variables. This logic model will not likely be the same as the program logic model but will draw upon many elements from it (if there is one available). Again, multivariate analysis of variance/covariance will likely be the analysis model of choice perhaps combined with path analysis or some form of structural equation modeling (Mayeske & Beaton, 1975). Outliers may be examined for the existence of curvilinearities and discontinuities with exploratory analyses being done to try to understand them (Mayeske & Beaton,1975). Partitioning of the variation in a dependent variable or set of variables may also be used to avoid undue reliance on the interpretation of regression coefficients which may, under certain conditions, be extremely misleading (Mayeske & Beaton, 1975). Or, a form of weighted regression might be used to approximate longitudinal growth curves using cross-sectional data (Beaton, 1986; 1984; 1983; 1982; 1981; 1975; Beaton & Mayeske, 1986a, 1986b; Mayeske, 1982; Mayeske, et al., 1972) In short, an eclectic use of data analysis models is advised rather than relying solely on one.

7. What kind of a difference is worthwhile?

This question takes different forms depending upon the type of study involved and the kind of analysis models being used. Basically it is concerned with the values that can be placed on a difference or improvement attributable to a particular program. The difference or improvement may involve pollution, destructive behaviors, cognitive or physical proficiencies, birth weights, agricultural production, business practices or a wide variety of other phenomena. Assuming that these differences are not due to random fluctuations, the concern is whether they are worthwhile in some other sense as well. Cost can be one kind of information brought to bear on such considerations and if cost data is available it can be usefully entered into the analyses. Even if cost data is available however, some other values and concerns must come into play. Judgments have to be made as to whether the difference is of sufficient magnitude to be of value in it's own right (if it is a consequence or impact) or of a sufficient magnitude to lead to some desirable end. For example, if pollution is reduced, is the reduction large enough to help us reach a desired level in some given time period at an affordable cost? Or, is the enhancement of the cognitive proficiencies of youth sufficient enough to hold up over a sufficient period of time so that they can benefit in the longer run from later experiences that build upon these skills? Or, are the enhanced business practices sufficient in magnitude and type to enhance the viablilty of the business and the community of which it is part? In short, value judgments inevitably come into play in deciding the worth of a particular result.

It may be of interest to see how these questions might be dealt with for ***system/policy*** type studies, especially those that involve the analysis of qualitative kinds of data. The order and phrasing of the questions will change somewhat in the discussion that follows:

1. Should data reduction techniques be used?

Most qualitative studies (including those that analyze the content of field notes, documents, recordings, verbal exchanges, etc.) need to "boil down" their data in some form so as to better manage and interpret it. Often such analyses will develop some system of categories into which segments of the narrative data can be categorized. An initial set of categories is sometimes developed by a careful review of the narrative statements which are then successively refined as segments of the narratives are classified into them. These segments may be developed by a technique akin to "parsing" in which narrative statements are broken down into component parts that exemplify the hypothesized concepts/categories. Once all of the segments have been identified and classified, further analysis can then be performed on them - both quantitative and qualitative. The success of this effort depends upon the extent to which another analyst, working independently,could come up with the same segments, categories and classifications if given the decision rules for their identification and classification. If agreement can be reached at some acceptable level, then higher order analyses based upon them are justifiable. If agreement cannot be reached then the analyses may reveal nothing more than the idiosyncrasies of the analyst.

2. What should be done about missing data?

If there is missing data, by which is meant omissions in the narrative statements, some form of imputation may not be possible nor desirable. The fact that it is missing, if not due to oversight, may be an important source of information in its' own right.

3. How should the data be scaled?

If the data are to be systematized and analyzed quantitatively the segments or categories of segments might be rated on a variety of scales for the extent to which they exemplify different attributes with these scale values then being analyzed with the segments as the unit of analysis. These ratings can be related to one another as well as to other attributes of the segment such as demographic descriptors, situational characteristics, nature of the interaction, etc.

4. & 5. How should weighted data and mixed levels be handled?

If a stratified sampling procedure is used to obtain the narratives then some kind of sampling weights may be needed to correct for disproportionalities.Usually however, the sample is drawn in such a manner that it is either self-weighting or random sampling procedures are not used and therefore weighting is not an issue even though one's ability to generalize beyond the sample remains an issue. Unless, of course one is working with the entire universe. Levels analyses may also be possible with such data. However, the occurrence of such analyses is rare.

6. What are appropriate data analysis models?

To the extent that the analyses are intended to be quantitative many of the procedures cited earlier might be applicable. In addition, a variety of other quantitative techniques nay be appropriate, especially for content analyses (Sedgewick, 1983; Krippendorf, 1980). However many qualitative studies/analyses are conducted in order to understand or uncover phenomena that cannot be dealt with adequately using the usual quantitative approaches, Hence, the analyses too may retain a qualitative nature.

7. What kind of a difference is worthwhile?

If the analyses are quantitative in form then the same concerns expressed earlier may also apply here. However, if their qualitative nature has been preserved then they may take on a very different form.Conceivably, the qualitative effects of a program may enable the comparison of "apples, oranges and even green pears" as noted by Patton (1990). For example, what one person might derive from their participation in a program may be totally different to that of another person. Hence judgments concerning practical significance must still be made but they are not necessarily based on magnitudes.

16.4 A Sequential Approach for an In-Depth Evaluation Study

One can imagine a situation in which a Program Evaluator (PE) is called in to confer with a potential client concerning an in-depth evaluation study. The PE may bring to the setting a broad background in program evaluation and research methods. The client's background may range from absolutely no knowledge of evaluation to an advanced degree in a technical area or in human development with some graduate level work in evaluation. The client's motivation for the study may vary widely as well - from a genuine desire to learn about their programmatic effort to little or no enthusiasm but having to do so due to some requirement. The backgrounds of both parties plus the motivation for the study and the nature of their relationship with the PE (e.g. known and trusted versus third party alien) will greatly affect the nature of their deliberations. One can view these deliberations as a kind of negotiating session (or series of sessions) in which the two parties (actually there may be more than one person in each party) exchange views as to what the questions are that the study will address and how they might be answered. There is thus an iterative relationship between the study questions and the study design - each one in turn delineating the other. Hence, the first step in a generic sequence of steps in an in-depth study can be depicted as two highly interrelated tasks called: **Determine Study Questions**; and, **Develop Study Design**, as in Figure 16.1, with the arrows to and from representing the negotiations and the longer box for Study Design representing more detailed specifications once the negotiations have been completed.

There is a set of at least seven concerns that come into play in these negotiations that we shall call clarity, credibility, coverage, cost, accuracy, form(at) and time. As depicted in Figure 16.2 they also play back and forth on one another in a very rapid fashion. Indeed, the PE might be envisioned as a juggler who keeps all of these in motion at once but is also skilled enough to change their order while they are being juggled. Let us examine each of these seven in turn:

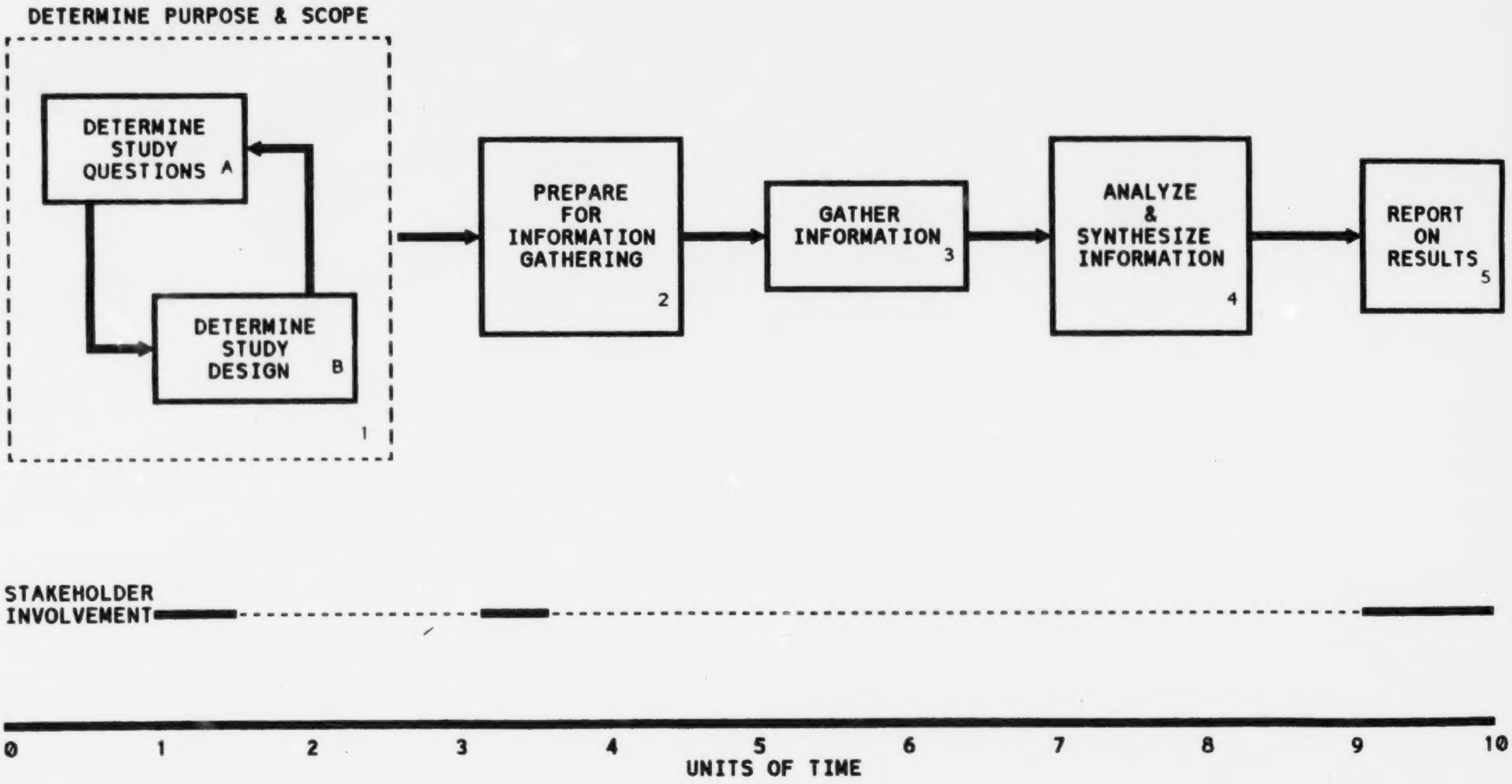
oo Clarity - on the one hand the client may not be at all clear as to what questions they should be asking. Alternatively, the client may have a well developed notion of what the questions are and even how they might be addressed. In the first situation the PE will help the client clarify their thinking taking into account such concerns as the maturity of the program, the uses that will be made of the study results, the specificity of the programmatic goals (e.g. enhance self-esteem versus impart skills x,y &z), etc. In the second kind of situation the PE's task may be greatly simplified if the client has an adequate and appropriate set of questions and design in mind. However, if they are not adequate and appropriate then the PE may face the difficult task of tactfully reorienting the client.

oo Credibility - will the credibility of the study be an important concern and how might credibility concerns be manifested? Will who does the study and their relationship to or independence of the program be a factor in influencing the acceptance of the results? How does the nature of participation or occurrence of benefits (if such is an appropriate concern) need to be documented? Will the verbal report of the participants (or former participants) suffice or will more specific documentation be needed? Will observations of a third party observer suffice?, etc.

oo Coverage - to what extent are breadth of coverage and depth of coverage of concern and to what extent can they be traded off? For example, is it necessary to focus on the entire programmatic effort or can just some of its' components be examined? Can fewer units/sites be studied in more depth or must strong generalizations be made using many units/sites?, etc.

oo Accuracy - this term is used to cover a variety of technical concerns such as: whether statistical generalizations are desired and if so, with what degree of precision; in what ways and how adequately can participant changes be gauged (e.g. the concerns

Figure 16.1 Generic Steps in an In-Depth Evaluation Study



DETERMINE PURPOSE & SCOPE

DETERMINE STUDY QUESTIONS A

DETERMINE STUDY DESIGN B

1

PREPARE FOR INFORMATION GATHERING 2

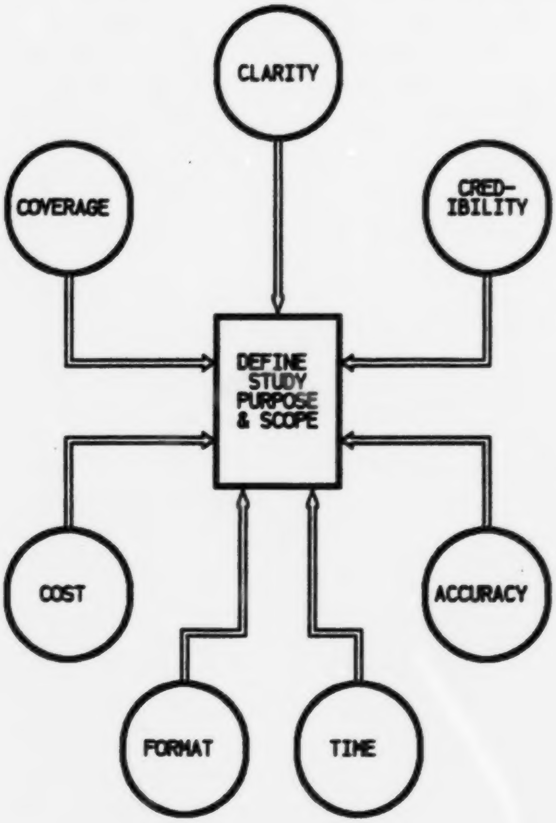
GATHER INFORMATION 3

ANALYZE & SYNTHESIZE INFORMATION 4

REPORT ON RESULTS 5

STAKEHOLDER INVOLVEMENT

Figure 16.2 Considerations Affecting Study Purpose & Scope Negotiations


CLARITY
COVERAGE
CRED-
IBILITY
DEFINE
STUDY
PURPOSE
& SCOPE
COST
ACCURACY
FORMAT
TIME

of reliability and validity of measurement), etc.

oo Cost - the resources that can be made available to conduct the study is a potent factor which will affect many aspects of the questions addressed and the study design. Resources can be thought of as covering more than just money, For example, in-house staff might be used for some tasks or even to conduct the entire study thereby avoiding the need for extra funds, etc.

oo Form(at) for Results - the form(at) in which results are needed can also be a factor in determining the speed of completion. Clearly, raw data or crudely tabulated data can be produced more readily than can an interpretive report and the latter more readily than a videotape of the results.

oo Time - when the study results will be needed will play a large role in determining what can be done. If little time is available many of the other concerns become irrelevant. As noted earlier, in-depth studies may require many months to a few years to complete and if such time is not available then alternatives need to be generated. One alternative for a paucity of time is to consciously decide to not do a study recognizing that a proper one could not be done in the time available.

The next steps in the generic sequence follow directly from the completion of these steps. [It is not uncommon for outside assistance to be sought at this time to carry out the next steps.] For an impact or implementation study there will undoubtedly be some concern with literature and background document review, sample selection, instrument development,test and revision, field data collection plans and procedures, analysis plans and procedures, synthesis of results and report preparation, etc., as depicted in Figure 16.1. For system/policy studies however the content of the steps is less, clear. In the examples examined earlier two of them did involve some of these concerns while the other entailed a large scale search, review and synthesis of extant literature, study results, background documents, minutes of meetings, etc. in order to develop a new conceptual model. It is as if the nature and magnitude of the steps change depending upon the idiosyncrasies of the particular system/policy study.

Stakeholder involvement can occur at three different points in a study. Their involvement can be sought to help define the study questions, or to advise on the relevance and appropriateness of different procedures and instruments or, to aid in critiqueing the results and in determining their implications. Stakeholder involvement is portrayed in Figure 16.1 as occurring at these different points in the tasks. [They can also be involved in reviewing progress but their influence there is relatively minimal.] Their involvement in the first two tasks (viz. 1a and 1b) could increase the amount of time required to complete them. This might be ameliorated somewhat if they are included in the initial discussions even though it is not the purview of the PE to do so at that point in time. However, the PE might suggest to the client that they might want to have some stakeholder representation at this meeting, if appropriate.

In the next chapter we examine ways of sharing and using results whether they come from an in-depth study or from a Life-Cycle Program Evaluation.

Chapter 17.0 Sharing and Using the Results of Life Cycle Program Evaluations and In-Depth Evaluation Studies

In this chapter we review a variety of different uses that can be made of evaluations and then focus in detail on those that are planned uses of a study's results. Examples are drawn from a number of studies conducted by the Cooperative Extension System in recent years.

17.1 Varieties of Utilization

We can identify a variety of ways in which evaluation studies can be used. The most familiar kind of utilization and the kind we will devote most attention to is that of the **planned or intended use of study results**. However, there are also **fortuitous uses** and uses that occur **independently of a study's results**, usually while the study is in some stage of implementation. We shall call this latter **non-results related uses**.We may create a two-way table for these, as follows:

Table 17.1 Varieties of Utilization

	FORTUITOUS	*INTENDED*
NON-RESULTS BASED	a	b
RESULTS BASED	c	d

In **cell a** we have fortuitous or unanticipated use of a study that is not based upon its results. This may occur in a variety of ways. One example is to use the existence of a study to postpone any changes being made (usually of a resource reduction nature) until the study results are in. Another, is to postpone any other studies or audits being made of the program until the current one is finished due to the excessive burden that would be placed on staff and possible confusion due to a number of different activities going on simultaneously. In **cell b** we have intended uses that are non-result based.These can occur when, as part of a strategic or tactical objective (as discussed in the prior chapter) one deliberately starts an in-depth study so as to be able to "fend" off actual or potential threats to the program or to gain a competitive advantage. **Cell c** involves the fortuitous use of study results. This may occur when an unanticipated opportunity arises to use the study results to enhance the status of the organization or program and/or to gain a competitive advantage. Or, the study results are misconstrued (either deliberately or unintentionally) so as to reflect negatively on the program or organization. **Cell d** involves the intended or planned use of study results and is the topic to which we shall devote the remainder of this chapter.

17.2 The Planned Use of Evaluation Results

Even though one cannot absolutely guarantee that the results of an evaluation study will be used (assuming that they are worthwhile) there is much that can be done to facilitate the entire process of dissemination and utilization. Two obvious considerations are to plan far enough in advance for different kinds of dissemination and utilization and, to involve potential users early on (Patton, 1986).

In a system as vast and as complex as the Cooperative Extension System the use of results from evaluation studies occurs in many, many different ways rather than being focused on a single decision maker or decision making body. In recognition of this fact and in order to reach its' diverse and far flung audiences with the results of its many evaluation studies, the Extension Service of the U.S. Department of Agriculture developed the matrix format given in Figure 17.1. To use this format or one like it, the potential user groups for the study results are first identified, then the ways in which they would likely use the results and, as a consequence, the form in which the results might be presented to them.

o **User Groups** - categories of user groups are identified for a study. Not all of the groups listed in the matrix would be appropriate for any one study. A complete list of those possible is used so that all of the studies can be handled in one format. However, for a single broad ranging study, all of those listed would likely be appropriate. [Some might even be broken down into sub-categories.] Most of the user group categories are self-explanatory. Extension Staff might include the Extension Committee on Organization and Policy with its substantively oriented sub-committees of: strategic planning; legislation; budget; program leadership; and, personnel and organizational development (mentioned in earlier chapters as important decision-making groups for the system). To the extent that an evaluation study has findings of scholarly interest they might be shared with Professional Groups and archived in the Libraries as a contribution to the research and knowledge base.

o **Types of Utilization** - the types* of utilization are also fairly self-explanatory. **Awareness and Information** focuses on "getting the word out" while **Program Justification** is concerned with accountability - is a program doing what it should be doing in terms of focus on the problem - the who, where, gets what, when and how often, hopefully with the citation of some benefits, even if they are only anecdotal in form. **Program Improvement** is concerned with those aspects of the study's findings that might be used to enhance program performance in terms of efficiency, effectiveness or client palatability (the "it works but we can't stand it" phenomenon). **Program Redirection** is much as it is outlined in Chapter. 13. Any evaluation results may have **Policy Implications** in terms of the functioning of the program or the functioning of the

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* Shadish et al., (1991) report some theorists as using the concepts of instrumental (making changes), conceptual (developing understanding) and persuasion (promoting or advocating) to think about types of utilization. However, the ones used in Figure 17.1 are better suited to the needs of Extension.

Figure 17.1 Dissemination and Utilization Plan

STUDY:

USER GROUPS	TYPES OF UTILIZATION								MODES OF DISSEMINATION												
	Awareness and Information	Program Justification	Program Improvement	Program Redirection	Policy Formulation	Staff Development	Research Base	Other	Media Releases	Popular Reports	Video Tape/Disc	Cassette Diskette	Factsheets	Briefings	Meetings/ Conferences	Speakers Bureau	Implications Memo	Program Profile	Analytic Formats	Technical Report	Other
Life Cycle Guidance Team																					
Transition Management Team																					
General Public																					
Clientele																					
Stakeholders																					
Extension Staff																					
University Staff																					
Government Agencies																					
Elected Officials																					
Special Interest Groups																					
Professional Groups																					
Libraries																					

P = Planned **I = In Process** **C = Completed**

organization of which it is part or, for that matter, for other related organizations. The policy might pertain to criteria of eligibility for participation in the program, kinds of experiences that should or should not be provided and by whom, roles that other organizations should or shouldn't play, etc. **Staff Development** is an often overlooked use of evaluation results. Evaluation studies may uncover staff training needs or lead to the development of new materials for such training. The **Research Base** is important for Extension and one would want to insure that findings that might have relevance for future programming be made accessible to a variety of groups. **Other** is just a residual category for concerns that might not be covered in the preceding categories or might involve the idiosyncrasies of a particular study.

o Modes of Dissemination - Some possible modes of dissemination are listed - undoubtedly others may also be relevant. The first five (**Media Releases, Popular Reports, Video Tape/Disc, Cassette/Diskette, Fact Sheets**) are all vehicles for getting the results out in a fairly succinct form. The next three (**Briefings, Meetings/Conferences, Speakers Bureau**) involve some personalized presentation to what may be a fairly "captive" audience by a person who should be able to answer what may be fairly detailed questions from them. An **Implications Memo** teases out the implications of the findings for changes in program policy and/or practice. It is a document that is usually negotiated by the PE with the program staff and is not usually given wide circulation. It is particularly useful when there is a decision making body to which the results should be targeted. The **Program Profile**, as we saw in Chapter 13, contains an array of information about a program that is prepared for use by the Life Cycle Guidance Team (LCGT) or the Transition Management Team (TMT) for purposes of program review, ranking and redirection. **Analytic Formats** refers to the presentation of results in analytic or tabular form and is often used in policy formulation when a decision making body wants to explore the implications of different policy options and view their numerical consequences, especially in resource allocation kinds of efforts. Finally, for any study a **Technical Report** must be developed in sufficient detail so that other investigators might examine them to determine if they could use them for other, similar studies or if they could have come up with the same results themselves if they were to repeat the study.

A matrix like this can be used for each study with the cell entries being **P** for **Planned**, **I** - **In Process** or **C** - **Completed**; with each up-dated periodically. Hence, a date entry in the upper right hand box.

Obviously the content and tone of the different modes will vary with the user group and their anticipated type of utilization. Usually, the PE in cooperation with the program staff, will specify the study findings and recommendations and then these will be formatted by an information staff who are accustomed to preparing materials for such audiences. Critical information is usually included in most but often couched in the language of program improvements.

This same format can be used for State and for Local evaluation results. However, the user groups, types of utilization and modes of dissemination might differ considerably.

17.3 Examples of Planned and Actual Use

By way of illustrating some of these concepts we can examine examples of some of the planned and actual uses of a few of the in-depth studies described in the previous chapter:

o **Nutrition Education for Low-Income Families** - this study was mandated by Congress in 1979 in a surprisingly detailed manner entailing one full page of questions to be addressed. It arose out of a conflict between the Senate and House Appropriations Committees. The former wanted to cut the funding while the latter wanted to preserve it. The House prevailed but the study was a kind of compromise position in that they would revisit the topic when the study results became available. In the Spring of 1980, with the advent of a new administration there was much interest in Congress in defunding what were thought to be "social" programs. However, Congressional staff who were supporters of the program pointed out that the program was currently being evaluated and that they should wait for the evaluation results before making any decisions. When the study results became available in late 1981 Congress had lost it's fervor for such programs and moved on to other topics. Study results were favorable for the program and were presented through a series of briefings to Congressional, USDA and Extension staff, via a brief written report to Congress and a one page fact sheet on the study procedures and results was widely disseminated throughout government and throughout the Cooperative Extension System. A deliberative body representing State and Federal Extension staff was formed by the ES Administrator to review every thing that was known about the program including the study results and make recommendations for change. As a result efforts were initiated to revise the reporting system and to update and standardize the curriculum.

o **4-H Youth Development: Alumni** - this study was requested by a 4-H Impact Study Committee and was intended to take a retrospective look at how 4-H alumni as well as Alumni of other youth organizations felt that they benefited from their participation and to gauge the extent of their involvement in current community affairs. Summary reports and one page fact sheets were given wide circulation both within and outside of Extension. A video tape about the results was developed and made available to each State so that they in turn might make copies available to their counties. An Implications Memo was developed through negotiations with the Impact Study Committee proposing specific policy and programmatic changes. Upon completion, copies of the Memo were shared with all States accompanied by a cover memo endorsing the recommendations signed jointly by the ES/USDA Deputy Administrators for 4-H Youth Development and for Planning, Development and Evaluation.

o **Extension and Volunteers** - this study was requested by the then ECOP subcommittee on Accountability and Evaluation. Among other findings this study showed that Extension works with about 2.9 million volunteers annually thereby multiplying five-fold the combined Federal-State-local contributions and enabling Extension to reach some 48 million persons each year. [This number, rounded to 3 million, has now become part of the lore of Extension and appears in many of its' publications and presentations.] Study results were presented to Congress as part of the appropriations process, to the public and clientele via media releases and one page fact sheets (the latter also for CES and USDA staff) and through a series of briefings to USDA staff. In addition, presentations were made at professional meetings . A video tape of the results was made available to every State and county and a complete set of the reports was housed in each Land-Grant University library. Many States used some of these reports in developing or revising their training materials for both staff and volunteers; and, the results were used as part of an effort to develop a system-wide strategic plan for work with volunteers and leadership development.

o **Contemporary Youth and Contemporary 4-H** - this study was requested by a 4-H Impact Study Committee and was initiated to test the feasibility of conducting a longitudinal study of youth including those in 4-H via a phone survey (at least initially). Response rates for non-4-H youth were found to be unacceptably low and potential study costs too high. Hence, the plan was abandoned and as an alternative, secondary analyses were performed on longitudinal data available from the U.S. Department of Education which had a limited amount of information on youth participation in 4-H and other activities. These analyses showed that the program was very different from its' past with dramatically more minority youth being served in in-school and after class settings (Steele, et al., 1993a; 1993b).

o **Leadership Development** - requested by the then Accountability & Evaluation subcommittee of ECOP, the results from this study were presented via a series of briefings to CES staff and a non-technical summary report was given wide circulation both within and outside of Extension. The results were used by local staff to better define the program and its' activities and were also used as part of an effort to develop a system-wide strategic plan for leadership and volunteer development.

o **Youth at Risk** -this study was initiated at the request of the ES/USDA Deputy Administrator for Management who wanted to know how well CES staff were at working with youth from high risk environments. An outside contract firm was hired to do the study with their results being provided via a series of briefings and a technical report. ES developed a one page brochure on the study's procedures and findings which was widely disseminated to CES staff and stakeholders. As a result of the study some projects were refocused to deal more intensively with at risk youth.

o **Polish/American Extension Project** - this study was requested by the three agencies involved (CES, USAID, FAO) to see to what extent such an effort was worthwhile and whether it should be continued or even fostered in other former Eastern bloc countries. Study results were presented in a series of briefings and a written report whose Executive Summary was given wide distribution. The results were in the affirmative and funding was renewed with certain project efforts being strengthened.

o **Nationwide Extension System** - requested by the then Accountability and Evaluation subcommittee of ECOP, the results from this study were presented via a series of briefings to USDA staff, a technical report and a one page fact sheet which was given wide circulation. The results were used by a committee especially formed by ECOP to further define and delineate the Federal-State partnership in Extension.

o **Extension/Research Complex** - this study resulted in the development of a new conceptual model of how the CES can and should function within this larger complex with a series of recommendations as to how this can be accomplished. The results were presented via a series of briefings or presentations to CES, USDA and staff of other organizations/groups, through a series of brief summaries some of which appeared in special journals or publications and, a book length report of the entire effort. These results have been and continue to be used to help articulate the unique roles that Extension plays (or might play) in this larger complex.

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Appendix A

Workshop Formats and Materials for the Program Design Team Facilitator(s)

HOW MUCH TIME IS NEEDED:

Usually a workshop is conducted in a series of 2-2 day sessions. So as to allow the participants time to travel to and from their home base, the sessions usually run from noon of one day to noon of the third day. However, if travel time is not a problem then each session can be held on two full consecutive days even though fatigue of the participants and the facilitator(s) may become a consideration.

Usually a period of 2-3 months is required between sessions to allow adequate time for scheduling, conducting and transcribing the interviews and doing some preliminary analyses of the results. This period may vary from a low of 6 weeks to a high of 4 months depending upon the need for the results or the interference from other events (a longer period of time runs the risk of losing the interest of the group).

Sometimes a third (or even fourth) one-to-two day session is needed to finish up and/or to conduct a model verification exercise. Usually if the topic being dealt with is quite complex or if the participants have never worked together on such a topic then another session(s) may be needed. A model verification exercise is one in which program providers who have not been part of the workgroup are brought in to critique the model as to how reflective it is of their own experience and suggest appropriate modifications. Usually a verification session requires only half to three quarters of a day.

WHO ATTENDS:

It is important to have a preponderance of program providers who impact directly on clientele in the workgroup for they in a sense are the "reality filters" as to what is or might be "doable." Add to them some administrative staff and some subject-matter specialists in order to "round out" different aspects of topical concern. Experienced volunteers may also be included, if appropriate. Finally, some one person needs to be named as the contact for seeing that arrangements are made, things keep moving, documents get analyzed and a report is written. If this person happens to have some training or a background in evaluation it can be a real advantage in carrying out some of the technical aspects of the work. A group can vary in size from a low of 5 to 6 to a high of about 15. However, since the process fosters much interaction, more time may be required with a larger group. Participants running in and out during sessions can be very counterproductive. So too can absentees.

WHAT MATERIALS ARE NEEDED:

Flip charts, magic markers, masking tape and a great deal of wall space is needed to put up sheets of paper. A chalk board or its equivalent can also be very useful as long as what is on it is written down before it is erased.

Very little note taking is required since the sheets provide a written record. Some however, have still opted to take notes in order to help them prepare the report. Visual materials are not used. The configurations of many rooms in which one finds themselves are often not conducive to visual presentations. Then again, there may be a lack of dependable equipment. Hence the emphasis on a handout which also has the advantage of giving the participants some relevant materials to make notes on and take away with them.

The configuration of furniture in the room needs to be such that the design team members can readily see and talk with one another as well as with the Facilitator. Usually a rectangular or semi-circular seating arrangement with the Facilitator working in front of the group works well.

WHAT ATTRIBUTES AND SKILLS DO FACILITATORS NEED:

As the Facilitator(s) of the process you should be a third party--to the topic and also to the members of the team. Your **neutrality** and **lack of expertise** with regard to the topic is important for a number of reasons: (1) you do not want to have nor give the appearance of having a particular viewpoint; (2) your lack of expertise allows you to ask "dumb" questions which can often reveal hidden assumptions or the line of reasoning of different team members; and, (3) your naivete` forces members to talk in your layman's language rather than their specialized language. You want to be a third party to the members of the team also because as Facilitator you need to tend to the tasks on the agenda and sometimes force a weary group through the steps involved, tactfully trying to avoid conflicts among the members or quiet an unusually loquacious member. In addition, they don't have any views or knowledge of you that is likely to influence them in counter-productive ways. It is very difficult for one facilitator to do it all. For the lone facilitator fatigue may build up to such a point that the "brain turns to putty," the quality of your discourse deteriorates and you may even find yourself violating some of your modeling principles (e.g., putting a dependent event before its precursor, etc.). Hence, it is most desirable to have two persons who take turns doing the facilitating.

The quality of the end products will depend in large measure on how you conduct yourself as a Facilitator. You are the guest of a group of otherwise very busy people who may feel stretched thin and stressed by all they have to do. You are also their taskmaster for the tasks at hand. When team members ask if there is any preparation they have to do prior to the workshop sessions we tell them to get a good nights rest and bring a clear, fresh brain to the sessions. This is well received and realistic as well, for chances are that they wouldn't have time to prepare anything if they had to. There are at least three critical skills and a host of desirable attitudes for good facilitating. The skills are the **probe**, the **restatement**, and the **delay**. The **probe** is characterized by such phrases as: "say some more about that;" "run that one by me again;" "excuse me for being dense but I just don't understand;" or, "could you explain that to me again." The **restatement** is characterized by phrases that precede an actual restatement or paraphrase what is being said, such as: "don't let me put words in your mouth but do you mean....;" "are you actually saying that....;" or, looking at another team member and saying "does she mean that.....". The **delay** is more a physical stance than it is verbal. The facilitator keeps hesitating to write something on the flip chart and maintains a quizzical facial expression. Members may ask "why aren't you writing that down?" to which the facilitator may respond "it doesn't sound quite right" or "it sounds odd or peculiar." Sometimes humor develops around when and what the facilitator writes down. Remarks such as "we must have gotten the right answer for he wrote it down" or "hey, he actually wrote it down the way I said it" are not uncommon. All three skills are important for building understanding and consensus among the team. Anything that fosters humor and occasional laughter among the group will help lighten the burden of the tasks for though seldom boring, the work can be tiring. A few tasteful jokes and a few jokers on the team can do wonders.

Finally, the group needs to work in a climate of mutual trust, candor and cooperation. If status differentials within the group impede its functioning then the group needs to be restructured or the matter dealt with openly by you. An unusually talkative or domineering member may have to be graciously "muzzled" by pointing out that you would really like to have more participation by the others. In an extreme case they might even have to be seated differently or removed from the group. A team member may be recalcitrant because they have antipathy for planning or feel that it will encroach upon their autonomy--the latter sometimes cloaked in academic freedom. You may have to get them off the team. In the right climate a bit of "letting down of hair" can occur which can be beneficial to both program and interpersonal development and can persist beyond the life of the design team.

Sometimes team members will ask "how are we doing?" This is an indication of the fact that they really don't know because they are not that familiar with the process. They are looking to you for some positive feedback. It is good practice to provide them with some positive encouragement of a genuine nature if such is warranted. Such statements as: "I feel that we have done some ~~really~~ good work in this session" or "we have really had a productive session with a lot of good contributions" can help a great deal in sustaining their interest. At times the group may start to turn a little stale or hit a stumbling point. That is a good time to take a brief break or make the promise of one such as, "let's just finish this point and we'll take a break" or "this is a natural breaking point." In addition to or in lieu of the break it is sometimes desireable to have the group review the Matrix of Educational Effects to help them resolve some issues; this is especially so for specifying activities and resources.

WHAT TASKS ARE DONE IN EACH SESSION:

A list of workshop tasks taken from Table 4.1 is given on the next page along with an indication of the session in which they may be first dealt with. Depending upon the elapsed time between sessions 1 and 2, the workshop participants may need a little refresher (not to mention the Facilitator(s)) of what was done in the 1st session. Hopefully, the Organizational Contact will have gotten all the materials from the 1st session typed up and distributed beforehand so that all can readily review the results as a group before taking the next steps. I regard the review of stakeholder interview results as a "fresh brain" task which should be taken up as early as possible and finished with as little disruption as possible (viz., intervening tasks or events). Consequently we usually take up the interview results very soon after the resumption of the 2nd session (e.g., 15-20 minutes after beginning). This then allows a full afternoon or morning to complete them and some additional time later if it is needed.

Once the interview results have been completed the modeling can be resumed. This is where a lot of memory refreshing needs to be done. Picking up with the Barriers is usually an ideal place to start (if you got that far) for it forces the participants to review the Functional component and Logic model. If you didn't get this far then you may want to revisit the Educational Effects and specify their indicators if they haven't been done yet (sometimes it is easier to save specifying these effects indicators for later and get right into the Functional component). The important point to be made is that it is nice to have a point of resumption of the modeling that forces the participants to review and think about what they did in the 1st session.

Mortvedt (1990; 1991) has developed an ingenious set of worksheets which not only facilitate the transition from one session to the next but actually facilitate all of the barrier and spinoff identification work. Each work group member receives a set of worksheets wherein each sheet contains a representation of the Program Logic Model with a shading of the main event being focused on. Beneath each main event are given the specific activities and indicators with spaces to write in the specific barriers, barrier reductions, spinoffs and resources. Once completed, such an approach of presenting successively more details of the modeling, can also be used to familiarize others with the results.

List of Workshop Tasks

Task Number/Session Number	Title
1./One	Introduction to Concepts and Procedures With an Example.
2./One	Identification and Discussion of General Categories of Stakeholders.
3./One	Formulation of Program Logic Model a. Educational Effects and Indicators b.Consequent Events, Effects and Indicators (indicators may be optional for the latter two) c. Antecedent Events
4./One	Specification of Program Functional and Indicator Components.
5./One	Development/Adaptation of Specific Stakeholder Questions.
6./One	Identification of Individual Stakeholders to be Interviewed.
7./One	Development of Stakeholder Contact Letters and Interview Procedures.
8./One	Development of Plan for: Conduct, Transcription and Analysis of Interviews; Document Review and Analysis
9./One &/or Two	Identification of Resources.
10./One &/or Two	Identification of Barriers and Barrier Reductions.
11./One &/or Two	Identification of Spinoffs.
12./Two	Review and Summary of Interview Results.
13./Two	Develop Conclusions, Recommendations and Next Steps; Conduct Administrative Briefing.

Optional (Later Session Tasks)

14. Model Verification Steps.
15. Individual Plans of Work Keyed to Events and Activities.

WHAT GUIDANCE IS GIVEN TO THE ORGANIZATIONAL CONTACT PERSON:

In addition to the facilities requirements identified in the Workshop Format section, the Organizational Contact may need some guidance on matters related to the interviews and their analysis. They are:

- The person or persons who do the interviewing **must** be independent of the topical area for that particular organization (often a graduate student or even super-Secretary can do the job nicely).
- Phone interview equipment - a device that operates directly off the phone jacks can be purchased very inexpensively, if not already available, and works much better than one that attaches to the speaker.
- Some materials giving directions to the interviewer concerning questions that may arise in the interviews may have to be provided--see the case reports referenced in the text or references for examples of these.
- Opening Statement - this needs to be provided and is absolutely critical in starting the interview while **not** providing answers to the questions that follow. Again see some of the case reports.
- A lot of time and effort can be saved by obtaining the names, addresses and phone numbers of stakeholders to be interviewed (if available) at some point (e.g., during a break) when the workgroup is still together instead of after they disperse. If they don't have it on hand, you can have them phone in to your secretary.
- Case reports should be studied carefully for analysis methods, procedures and formats.
- Responsibility for who is going to type up the interim materials (those from session 1) and who is going to prepare and have typed up the case report should be designated early on--preferably before the lst session begins.

WHAT MATERIALS ARE USED AS A HANDOUT AND REFERENCE FOR WORKSHOP PARTICIPANTS:

The following pages are used by the facilitator(s) in making their introduction to the program design process. One of the case reports from Appendices E-I (of Mayeske, 1991, Vol 2) is used as a handout to serve as the actual example.

HANDOUTS &
FACILITATORS NOTES FOR EACH HANDOUT PAGE

FACILITATORS NOTES FOR PROGRAM DESIGN PROCEDURES
(PAGE 1 OF HANDOUT)

The design team uses stakeholder* perceptions,what is known about the actual or intended program (from research, conduct of the program or related programs in the past, evaluations and other documents, etc.) combined with their prior experiences and collective expertise to develop the design of a program and identify actions to be taken on its behalf. The process that the group engages in uses extensive modeling exercises to develop a framework for what the program is or might be. As a result the team
members usually arrive at a consensus and develop a sense of team membership.

Futuristic perspectives about the program or concerning trends that might affect the program can enter into the discussion in one or more of three ways: (1) through the viewpoints of the stakeholders; (2) through the experiences and views of the design team members; and, (3) via the organization's vision, mission and functions. If the organization has gone through some recent futuristic work (e.g. scanning, visioning, etc.) then some brief time **should** be allowed for the group to review this work and discuss its significance for their current task. Hopefully, a half hour or less would suffice.

FACILITATORS NOTES FOR PROTOTYPE WORKSHOP AGENDA
(PAGE 2 OF HANDOUT)

Discuss these steps briefly with the design teaam so that they have an idea of where they are headed. See Chapter 4 for an overview & Chapters 5-8 for more details.

FACILITATORS NOTES-~~FOR~~-GENESIS OF PROGRAM DESIGN
(PAGE 3 OF HANDOUT)

The important points to be made are that these procedures have been especially adapted to Extension kinds of programming and as such they have been and are continuing to be used successfully in a wide variety of settings. **Emphasis** should be given to the topics dealt with. See Chapter 4 for more details.

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* A stakeholder is an individual (or group) who has a special interest in or influence over the program/topic **and** who can provide information that will be useful to the workgroup for the design, development, implementation and evaluation of the program.

BENEFITS FROM THE PROGRAM DESIGN PROCESS
(PAGE 4 OF HANDOUT)

It is important to emphasize that the process gives staff the **time** and **opportunity** to get together and go through a **disciplined** series of **steps** which results in the **framework for a program -called the program design**. The incorporation of **stakeholder viewpoints** contributes to and strengthens the deliberations of the group as well as making for a better design. The resultant design:

•provides a basis for the **plausibility** of the program and its results (viz. how convincing is it that this program will lead to these expected results?)

•serves as a tool for **communication** to stakeholders about different aspects of the program including needed resources, new staff,etc.

•provides a **blueprint** for future action including program development and implementation

•allows **staff** to sharpen their program **planning and evaluation skills**

FACILITATORS NOTES FOR THE GENERIC PROGRAM LOGIC MODELS
(PAGES 5,6,7 & 8 OF HANDOUT)

Emphasize that the **program logic model** is the **roadmap** or organizing structure for all that follows. The logic model is comprised of a series of main events -or **big happenings**-major categories of important occurrences that are related in a sequential and causal manner. For any one event to occur, all those events preceding it must have occurred first. The **IF-THEN** sequencing emphasizes this causal relationship. For example, if MAIN EVENT #1 has occurred then MAIN EVENT #2 can occur, if 2 then 3, if 3 then N, if N then the Educational Effects can occur and if these occur, then there can be Consequences. However, if for example MAIN EVENT #3 does not occur then nothing that follows it can occur. We'll see an example of such a model in a moment.

We start building this program logic model by identifying what the Educational Effects of the program are or will be(#5). Once these have been completed (#6) we identify Indicators of their occurrence(the dashed box) and then go on to identify other aspects of the model: Consequences and their Indicators and then cycle back to identify the events that must precede them.This takes us into the program itself where we identify the **activities** that make up each Main Event (the blank boxes), the **resources** to carry them out (the starred boxes) and the **indicators** for the occurrence of these activities (the dashed boxes).

Once these have been developed we go on to (#7) identify things that can go wrong in carrying out the program-called **barriers**-and things that the staff might do about them if they do occur-called **barrier reductions**. We also identify things that can perturb the Educational Effects leading to the Consequences over which the staff may have little or no influence-called **intervening events**. Finally, we identify unplanned occurrences that result from the program being structured and carried out in a particular manner-they are called **spinoffs** (#8). Examples of spinoffs are that Agents and Volunteers serve as role models for youth in the 4-H program or that Volunteers experience psychic income and time management problems by virtue of their being a Volunteer.

FACILITATOR NOTES FOR THE MATRIX OF EDUCATIONAL EFFECTS WORKSHEET (PAGE 9 OF HANDOUT)

Note that the **KASAB's** come out of the Bennet hierarchy- spell each one out. For each target audience we identify entries that reflect what changes clientele (or target audiences) will experience as a result of their participation in the program-in terms of these attributes.

NATURE OF ENTRIES FOR THE MATRIX OF EDUCATIONAL EFFECTS (PAGE 10 OF HANDOUT)

Read through with the group the nature of the entries for each of the **KASAB's** in turn. **EMPHASIZE** that there does **not** have to be an entry in each cell for each target audience- there can be blanks and that is OK.

FACILITATORS NOTES FOR THE SAMPLE STAKEHOLDER INTERVIEW QUESTIONS FOR PROGRAM XYZ (PAGE 11 OF HANDOUT)

Review the questions & their purposes with the design team reminding them that they can be adapted or that they may be rejected as wholly inappropriate & that they can develop ones that are better suited to their circumstances.

FACILITATORS NOTES FOR STAKEHOLDER CONTACT LETTERS & POINTERS (PAGES 12, 13 & 14 OF HANDOUT)

Don't spend much time on these other than to review them briefly and make the points that: (1) the Retail Trade Program had a considerable amount of prior experience wheareas the Water Quality effort had little; and, (2) emphasize strongly the footnote about not identifying the questions or providing answers to them. The sample letters will be useful in helping the team to draft their contact letter.

Pages 13 & 14 should be reviewed with the team. However, the points are fairly self-explanatory.

CATEGORIZATION AND PRIORITIZATION OF STAKEHOLDERS AND STAKEHOLDER CATEGORIES

- NO FIXED NUMBER TO INTERVIEW
    - USUALLY GET TOO MANY NOMINEES AND MUST REDUCE NUMBER

- TRANSCRIPTION CAN BECOME COSTLY AND ANALYSIS TIME CONSUMING AFTER ABOUT 30 INDIVIDUAL INTERVIEWS OR 4 FOCUS GROUPS

- THE CRITERION OF WHO HAS OR MIGHT HAVE A DIRECT EFFECT ON THE PROGRAM-TO-BE HAS TO BE USED REPEATEDLY

- NEED TO DIFFERENTIATE BETWEEN THOSE WHO MAY OR MAY NOT BE KNOWLEDGEABLE AND DECIDE UNDER WHAT CONDITIONS SUCH INTERVIEWS WOULD BE USEFUL

SOME POINTS ON INTERVIEWING STAKEHOLDERS

- PAY SOME ATTENTION TO THE INITIAL LETTER RE
    - STATUS OF SIGNATORY
    - STUDY PURPOSES AND DETAIL
    - ANONYMITY AND NON-ATTRIBUTION TO INDIVIDUALS
- CONTACT LETTER AND OPENING STATEMENT BY INTERVIEWER ARE CRITICAL IN ENCOURAGING PARTICIPATION WITHOUT ANSWERING THE QUESTIONS TO BE ASKED
    - MAY DO INDIVIDUALLY OR IN GROUP SETTINGS
    - MAY DO FACE-TO-FACE, PHONE OR COMBINATION
    - DON'T INTERVIEW PEOPLE YOU KNOW WELL–USE A THIRD PARTY
- TAPE RECORD TOTAL INTERVIEW, TRANSCRIBE VERBATIM AND ANALYZE TRANSCRIPTIONS
- DEALING WITH PERCEPTUAL DATA FROM A JUDGMENT SAMPLE-NOT INTENDED TO BE STATISTICAL
    - PURPOSE OF INTERVIEW IS "NOT" TO EDUCATE OR RE-EDUCATE THE STAKEHOLDER

Appendix B

Frequent Questions and Answers

Q: How can you expect these models to have any validity when we know that people don't really behave that way?

A: Real life is truly dynamic and non-linear. By forcing it to stand-still and be linear we are really creating an artificial condition that makes it easier to think about, talk about and communicate to others.

Q: How can you talk of verifying models if people don't really behave that way?

A: By verifying the model we mean that we try to determine the extent to which there is consensus among program providers that the model reflects or encompasses their experience in carrying out the prospective program, not that they will actually carry it out that way. The models are conceptual not physical; they are meant to serve as a guide to thought, action and communication and not as a description of actual thought and action.

Q: Just how detailed can and should this modeling be?

A: The modeling can be as detailed as one needs it to be. It can be carried to the level of Gant and Pert charts that will paper the walls of many rooms, if so desired. However, such a level of detail may be overwhelming and defeat the purposes of using it as a guide to thought, action and communication. Then too, the time and resources required to develop this level of detail may be more than anyone wants to invest.

Q: Why aren't feedback loops allowed in the program logic model?

A: We don't use feedback loops because the arrows are supposed to indicate causal relationships and we haven't allowed for "reverse" causation. We have on occasion drawn a single loop feeding back from the accomplishment of the goals/objectives to an earlier point, usually something related to an assessment or reassessment of the problem, issue or need because that would be a logical next step in the causal sequence (see especially Chapter 13). In addition, a kind of feedback loop occurs when one reaches out to stakeholders &/or prospective clientele & experts to obtain their guidance on various concerns.

Q: Is it necessary to do stakeholder interviews and how critical are they to the process?

A: Both stakeholder interviews and program modeling can be done alone or in combination. Stakeholder interviews usually enlighten and enrich the program modeling process and provide some indication of how and what people think about the topic or prospective program. Stakeholder interviews can be useful in their own right as indicators of what critical questions and thoughts others might have about a topic. At times stakeholder interviews may not be done for part (or even all) of an identified group because the "political climate" could lead to a misinterpretation of the intent of the interviews or their results could be misconstrued and lead to undesirable consequences. Or, a program or project proposal is being prepared and time or resources do not allow for them. Alternatively, program modeling may not be done because the schedule for an evaluation of a program or the sparse level of funding precludes such. These comments should not be construed by those who have a genuine "fear" of talking to stakeholders that they should not do so. The techniques used together are far more powerful than either one alone.

Q: Shouldn't we have a third party "expert" perform an objective and independent content analysis of the interview results so as to avoid any possible biases on the part of the workgroup?

A: This question assumes that the analyses could be done independently by a third party expert in such a way that the results would be meaningful to the workgroup members. Preliminary analyses can be done by such a person and presented to the workgroup members for their consideration. **However**, the members themselves are the content experts. For the results to be meaningful and hence useful the workgroup members must review, interpret and categorize them or make recommendations as to how they might be interpreted and categorized. Pursuant to such guidance further analyses can be done by the third party "expert" (see Krippendorf (1980) for a variety of techniques that can be used and Mortvedt, 1990; 1991; for analysis examples).

Q: Can this program design process be used for other types of programs, like research and development, as well as for educational programs?

A: This approach employs some elementary principles that have wide applicability. What we have called the Matrix of Educational Effects can be regarded in more general terms as any Effects matrix. For such a matrix we could pose more general questions of:

1. What will be different?
2. In what ways will it or they be different?
3. What happens as a result of (2)?
4. What do we do to bring about (2)?

Answers to these questions provide one with the rudiments of a program which can then be elaborated on further using our concepts (logic model, etc.) or those of others.

Q: Would one person want to use these techniques to develop their own plan of work?

A: Not necessarily. They might require more time and more detail than is desirable. Then too, it's fairly easy to reach a consensus with oneself albeit the conversation may not be as rich nor the focus as broad. However, it is difficult to imagine that a quick run through of most of the concepts wouldn't enrich the process and help produce a better plan.

Q: Aren't prospective clientele of the program stakeholders too?

A: Sometimes yes and sometimes no. It is often the case that the clientele or prospective clientele of a program are not well informed about the topic. Exceptions occur when former clientele of a program continue a relationship with Extension over a period of time. We call them **clientele-cooperators**. They may very well be stakeholders and an excellent source of guidance.

Q: How do the criteria and procedures set forth here relate to the criteria of quality and excellence as set forth by Mueller (1991) and Smith (1991)?

A: There are many commonalities between these sets of criteria and what has been explicated in this manual. However, more procedural detail is provided herein.

Q: A lot of these criteria have the appearance of a "recipe" in that if one follows them closely enough they will end up with a "tasty" result. How do they contrast with staff commitment and zeal?

A: There is no substitute for staff commitment and zeal. They are undoubtedly the most important ingredients for programs to be successful. Sometimes they are the ingredients that make a program successful **in spite of** a set of requirements. However, when activities are to be orchestrated among a set of actors it seems to make sense to have them develop their thinking and reach some consensus on what it is they are about.

Q: Are there any shortcuts to Program Design (PD) &/or Evaluability Assessment (EA)?

A: A shortcut to EA that might be used is to adapt the stakeholder questions from Table 7.1 so that they can be used to interview program staff. On the basis of the interview results (viz. the presence or absence of consensus or convergent/divergent responses) one can decide whether or not a "program" is in operation. If one is, then some modeling might be done. If one isn't, then effort may be needed to develop one. The extent to which viewpoints are diverge might serve as an indicator of the nature & extent of design work needed. [Alternatively, a checklist might be developed to be used in lieu of the interviews provided that "distorted responses" would not be a problem.] In short, if there is no consensus among staff as to what they are about, why go further?

A shortcut to PD might be developed by using the illustrative model in Chapter 9 as a starting point. The model could be adapted in a sequential manner starting with the Program Logic Model, then the functional and indicator components, then barriers/reductions, intervening events and spin-offs, etc.. The fewer the adaptations made, the more directly useful the model would be. If nothing else, the model would serve to provoke the design group's thinking even though they might totally reject the model in its present form. The process might be greatly facilitated by some checklist or template approach.

Q: How does the Life Cycle approach work if an organization has many such programs & teams?

A: In Extension it is anticipated that an organization would have only a few programs that would warrant a sufficiently high priority to be handled in the Life-Cycle format with oversight from a Life Cycle Guidance Team (LCGT). If many such programs were in operation, then strong organizational tendencies would develop to have them all function within a common framework with the same reporting system and administrative structure with the LCGT functions performed by an executive or administrative council. This "forced fit" of all programs into a common structure often weakens individual programs in fundamental ways. For example, the reporting system often becomes a numbers "game" with reporting schedules out of phase with the program cycle and with little or no feedback provided. The most negative problems from the most troublesome programs often dominate the agenda of the council so that little oversight and recognition is given to those doing well, etc.. In view of such considerations, the Life Cycle format might best be restricted to a few key programs.

Q: Is it possible to develop programs that will have a "life of their own"?

A: In their initial stages, programs can be devised so that the organization can "step back" and let the program operate almost, if not totally on its own. We noted such examples as the Master Gardner program in Chapter 13. If the design team keeps some of the following considerations in mind, then "stepping back" might becomeeasier: (1) involve volunteers early on in the program, perhaps recruiting them from the first wave of alumni, if necessary; (2) pursue a master/mentor model in which the more experienced volunteers can gradually take over supervisory and administrative functions; and, (3) implement the program in sites that have an infrastructure in place that can carry the program on its own. Undoubtedly, the reader can think of yet other considerations.

Q: One sometimes encounters a great deal of resistance to a formalized approach to programming such as is being advocated in the Life Cycle format. Why is this so & what might I do about it?

A: Resistance has been found to such an approach in units that involve few staff & in which the staff is accustomed to functioning in an informal manner. In larger units the process gives staff who see each other very little a chance to plan jointly with the product providing a form of guidance for all. Little may come from any of these efforts if the administration does not provide appropriate incentives & support.

Q: How does this approach relate to each of the following?

o The Program Theoretic Approach in Evaluation

The program theoretic movement appears to be receiving increased emphasis in the evaluation literature (Chen, 1990; Bickman, 1990; 1987; Patton, 1990) even though the notion can be traced back to the work of Suchman (1967) or even earlier if one includes chain-of-events, hypothesis trail, path model and flow-chart concepts. This approach grew out of that same tradition. However, we opted for our own terminology because it is closer to the approach devised by Wholey (1979) as adapted by Smith (1989a).

o Strategic and Long-Range Planning

As outlined by a number of authors (Armstrong, 1985; Bryson, 1989; Coates, 1986; Morrison, et. al., 1984; Simerly, 1987) this approach can pick up about where strategic and long-range planning leave off. That is, once a sense of the organization and where its going has been established this approach becomes one way of planning specific, discrete programs.

o Project Management Procedures

Many of the principles used in this approach are also used in a variety of approaches to project development and management (Kerzner, 1989; 1984; Kezsbom et. al., 1989; Muther, 1988).

o Issues Based Programming

Extension has recently given great emphasis to the concept of "issues-based programming" (Albrecht and Deshler, 1990; Liles and Mustian, 1990; Brazzel and Sanderson, 1990; Taylor-Powell and Lipke, 1990). This approach readily lends itself to issues as well as needs and problems and especially so if they are interdisciplinary in nature.

o The Paradigm Debate in Evaluation

One of the things we have attempted to accomplish with this approach is to get evaluators and their techniques "out of the back of the bus and put them up with the driver where they are sorely needed". Since we remain a strong advocate of the use of multi-method research techniques for program planning and development (Brewer and Hunter, 1989) we have not totally escaped from this lofty debate (Guba and Lincoln, 1989; Patton, 1990). It suffices to say that all we ever really have are theories or hypotheses and there a variety of ways or methods that can be used to develop and refine them (Boone, 1985).

- The Objectives Referenced Approach to Curriculum and Instructional Program Development

One finds advocated frequently the approach in which learning objectives (and goals) are specified in concrete, numerical terms as to how many members of a given target audience will be served and how many will acquire specified levels of proficiency in certain skills (Tyler, 1971; Mager, 1972; 1975). These are usually developed on the basis of a logical or empirical analysis of the task(s) to be performed and may even guide the development of an instructional system (Gagne`, 1987). In the Program Design (PD) approach, a close counterpart to these numerically specified objectives can be obtained by specifying, in advance, numerical levels or targets for many of the indicators, especially for the educational effects indicators if they, themselves have been made specific enough.

Appendix C

Sample Outline of a Case Report

I. Overview/Summary

II. Background and Conditions Supporting the Need and Purpose for Such an Effort

III. **Presentation of the New Program Logic Model as the Expected Program**
[This model should be the organizing principle for the report & should be given major emphasis throughout.]

IV. Identification of Work Group Participants and Organizational Status

V. Discussion of the Topics dealt with and work completed in the sessions:

Session I: Modeling; Stakeholder Identification and Questions Developed/Adapted

Session II: Analysis and Summary of Interview Results including:
  Matrix of Summaries by Questions and Stakeholder Categories
  List of Thematic Observations from Interview Results
  Completion of Modeling
  Conclusions and Recommendations
  Next Steps and Lessons Learned

VI. Appendices
Program Logic Model, Functional and Indicator Components with Resources

Expanded Program Logic Model with Barriers, Barrier Reductions, Intervening Events & Spin-offs

Interview Results: number planned; number completed; reasons for non-completion; how conducted and by whom with what training and experience etc.; tabulations and analyses; etc.

Appendix D
Definitions of Terms & Concepts

Plausibility - Its Importance, and Other Concepts

All Life Cycle Program Management (LCPM) efforts are intended to make programs more impactful once they are developed and delivered (viz., increase the likelihood that they achieve their intended goals and objectives). However, in the absence of impact information one must rely on some precursor of impact--an indicator or forecaster of impact, if you will. The concept used for such purposes is plausibility. Plausibility is a **judgment** about the likelihood that a program, either proposed or in different stages of development/implementation/redirection, will achieve its intended goals and objectives. Short of impact, it is the superordinate concept in LCPM --the one for which all of the modeling and stakeholder involvement & analysis is intended to serve. [Even when impact is known & as a result programmatic changes are made, one again has to return to the notion of plausibility as a mediating concept.] LCPM specifies the Life Cycle Guidance Team (LCGT) as the deliberative body that should make these judgments. LCPM also attempts to specify criteria by which which such judgments can be made.

Smith (1989a) has defined plausibility as "a judgment about the extent to which necessary and sufficient conditions exist for a program to succeed (viz., whether activities are of the right type and amount to bring about the desired change)" (p. 6). On this and the following pages are given definitions of many of the concepts used in the preceding chapters.

Definitions of Program Life Cycle Concepts

Barrier Analysis: analysis of the occurrence of similar barriers among pairs of main events in the expanded program logic model.

Barrier Reductions: actions that program staff can initiate which might help surmount, overcome or avoid the barrier(s).

Barriers: events, states or conditions that can perturb the causal relationships and that program staff might be able to influence.

Concomitant Events: main events which occur nearly simultaneously in the program logic model.

Design Team: the persons assigned the task of conducting the exercises together, also called the task team, the work group or, at times, the group.

Educational Experience Profile: a statement of the nature & extent of exposure to learning opportunities that a given target audience or set of audiences will receive in terms of the four interdependent facets of: resources; content; time; and, context, wherein the relative considerations given to the four are influenced by access to a research/knowledge base.

Expanded Program Logic Model: the program logic model expanded to include barriers, barrier reductions, spinoffs and intervening events.

Facilitator(s): person(s) who assist(s) the design team to complete the different design tasks, stimulate/clarify their thinking, and reach a consensus on different concerns; may also perform a similar role for the development and transition management teams.

Feedback: forms of information provided to groups, units, individuals, etc. on which syntheses &/or judgments can be made about overall & relative performance with such syntheses/judgments being communicated back to those providing the information.

Fidelity of focus: the extent to which the LCGT has retained its focus on the problem to be redressed or ameliorated in the course of carrying out its oversight and decision-making functions.

Former Clientele: former participants, graduates or alumni of the program.

Impact: the behavior/practice change effects of a program and/or their consequences.

In-Depth evaluation study: an intensive examination (in terms of time and resources) of a programmatic effort/topic to estimate its actual &/or potential results or to assess the potential of new ventures.

Indicator Component: sources of evidence that can be examined to ascertain whether or not the activities, effects or consequences have occurred or are occurring.

Intervening Events: conditions, states or occurrences which can perturb the causal relationship(s), are subsequent to the educational effects and are usually beyond the influence of the program staff.

Life Cycle Program Evaluation (LCPE): an assessment of the accomplishments, impacts and value of a program in redressing or ameliorating a problem.

Life Cycle Guidance Team (LCGT): a group whose task is to sustain the plausibility of a program as it moves through the different stages experienced in carrying out a program.

Life Cycle Program Management (LCPM): a process in which programs are managed so as to sustain their plausibility within & between the distinctive phases of: problem finding; program design; program development; program implementation; program maintenance & improvement; and,program redirection.

Linkage Expert(ise): experience from prior cycles that members of the LCGT bring to the deliberations of the team.

Main Events: major categories of program activities, effects and consequences which form the program logic model.

Matrix of Educational Effects: K(nowledge), **A**(titudes), **S**(kills), **A**(spirations) and **B**ehavior/practice changes that clientele experience by virtue of their participation in the program (can vary in time of occurrence from immediate through intermediate to longer-term effects). Often called **KASAB's** for short.

Model Verification: a test of the extent to which the model as developed by the workgroup can be used to describe the way other program providers can or do carry out the program.

Mutual Clientele Effects: when the educational effects achieved with one set of clientele have effects on other clientele of the program; such changes can occur concomitantly, reciprocally or sequentially.

Need: "the value judgment that some group has a problem that can be solved" (McKillip,1987). Can be organized into a hierarchy in which higher order needs are based upon having met lower order needs. Distinctions can be made as to types: normative; perceived; relative; maintenance; and, overmet.

Organizational Liaison/Contact Person: one who serves as the point of contact for the design team and the facilitator(s) and insures that interviews and other tasks (e.g., analysis, typing proceedings, scheduling meeting times and places, report preparation, etc.) are carried out.

Plausibility: "a judgment about the extent to which necessary and sufficient conditions exist for a program to succeed" (Smith, 1989a).

Problem Finding: the means by which problems are sought out & identified; can be of 2 types: general & targeted problem finding.

Problem: "a set of ongoing perceptions held about a constantly changing gap between a desired & existing state" (Van Gundy, 1988b).

Problution: a series of redefinitions or alternative definitions until one redefinition of the problem is seen as a solution.

Program Functional Component: the sets of activities that must be conducted and the resources needed to insure that the events in the logic model take place.

Program Design: a theoretical framework for describing the effects and consequences of a program as they are related to its development and implementation.

Program Providers: those persons who work with the clientele of a program.

Program Modeling: the development of some representation of the program using schematics & flow diagrams.

Program Logic Model: a set of causally and sequentially related main events that define the program and it's consequences and conform to an "if-then" relationship (viz., for any event to occur all those preceding it must have occurred first).

Program Theory: a system of beliefs that are probabilistic in nature & which link an organized set of activities with supporting resources to intended results.

Program Clientele or Participants: person(s) or group(s) who participate in the program.

Program: a theory which links an organized set of activities with supporting resources to intended results.

Project: a specific type of program that has a specified deliverable within a given time period.

Resources: the amount of staff time (professional, para-professional, volunteer, support, etc.) in FTE's, materials and other expenditures (e.g., travel, facilities etc.) needed to carry out the program.

Spin-offs: unplanned effects of carrying out the program (can be positive or negative; known or unknown; and, anticipated or unanticipated, to those who provide the program).

Stakeholder: an individual (or group) who has a special interest in or influence over the topical area or program-to-be **and** who can provide information that will be useful for the design, development, implementation and evaluation of the program.

Target Groups(s) or Audience(s): intended recipients of the program; also called intended clientele.

About the Author

George W. Mayeske attended the University of Illinois at Champaign-Urbana majoring in Psychology with a minor in Sociology and Anthropology. After much deliberation he chose to pursue graduate study in Psychology rather than Anthropology, completing his Masters and Doctorate in Industrial Psychology at this same institution, majoring in both Psychometrics and Social Psychology.

Upon completion of his Doctorate he came to work for the Federal Government in Washington, D.C. and continues to do so after thirty some years. His first assignment entailed the evaluation of recruitment and training programs for the Navy Department. Shortly thereafter he transferred to the U.S. Department of Agriculture (USDA) to conduct research on personnel career systems, occupational performance criteria and executive decision making. He transferred to the then U.S. Department of Health, Education and Welfare (HEW). Initially, he directed an Operations Research Group that performed further analyses of the Educational Opportunities Data (the renowned Coleman study) which culminated in the publication of four monographs and numerous other papers. As a result of this work he received national and international recognition for his analyses of the socio-cultural determinants of achievement. Later this group was transferred to program evaluation where he was responsible for a number of large national evaluations of what were then Titles I and III of the Elementary and Secondary Education Act. Included among these studies were: A Longitudinal Study of Educational Practices; A Study of Compensatory Reading Programs; and, A Study of the Sustaining Effects of Compensatory Education on Basic Skills.

Upon his return to USDA he began working on the evaluation of Extension programs starting with a nutrition education program for low-income families and moving on to such topics as: volunteerism; 4-H and Youth Development; Extension as a nation-wide system; and, State funding for Extension. While in HEW he had worked with Joe Wholey and brought to USDA some familiarity with Evaluability Assessment (EA). Since many of the concepts of EA seemed appropriate for Extension it seemed reasonable to try to adapt them from use in "top-down" organizations to the "bottoms-up" kind of programming done in Extension. Through a partnership arrangement with "Midge Smith" of the University of Maryland this was achieved culminating in the publication of her book "Evaluability Assessment: A Practical Approach". A network of persons throughout the U.S. and territories was established to work on carrying out EA's. In the course of conducting these it became increasingly clear that there was a great need for more attention and effort to be paid to program planning and design. Hence, many of the EA techniques were modified slightly and used for purposes of program (re)design. These efforts resulted in a monograph entitled "Program Design: An Evaluation Approach". Life Cycle Program Management was in part an outgrowth of these efforts. It was also an outgrowth of a need to have a framework that encompassed not only program beginnings but program endings as well, for Extension had an increasing need for a systematic way of getting rid of a "surplus of programmatic obligations". For this latter, a project was initiated which is in the course of developing and testing program ending techniques in a number of States. If early experiences are a good indicator, this approach will prove fruitful, is likely to be adopted on a large scale system-wide, and may work closely with strategic planning efforts.